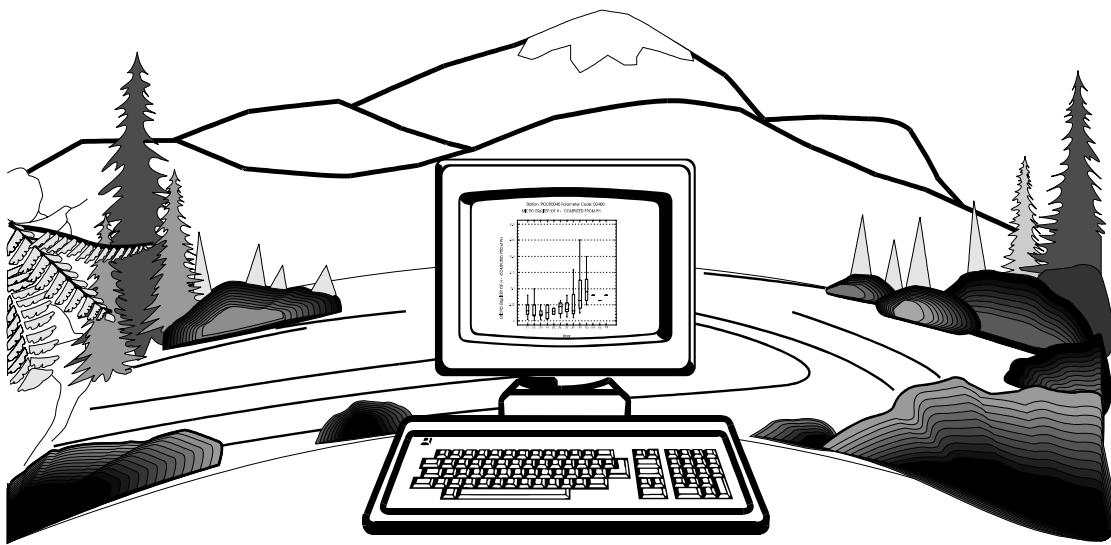


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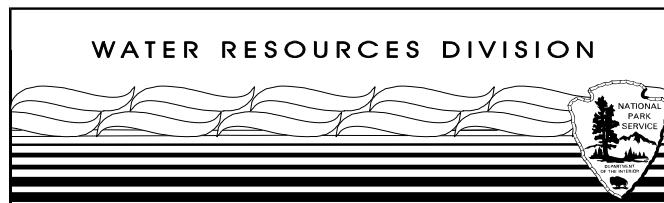
# **BASELINE WATER QUALITY DATA**

## **INVENTORY AND ANALYSIS**

### **Richmond National Battlefield Park**



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National Park Service - Department of the Interior  
Fort Collins - Denver - Washington

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**BASELINE WATER QUALITY DATA  
INVENTORY AND ANALYSIS**

**RICHMOND NATIONAL  
BATTLEFIELD PARK**

National Park Service  
Water Resources Division  
Fort Collins, CO 80525

Technical Report NPS/NRWRD/NRTR-99/241

OCTOBER 1999

United States Department of the Interior  
National Park Service  
Washington, D.C.



## EXECUTIVE SUMMARY

This document presents the results of surface-water-quality data retrievals for Richmond National Battlefield Park (RICH) from six of the United States Environmental Protection Agency's (EPA) national databases: (1) Storage and Retrieval (STORET) water quality database management system; (2) River Reach File (RF3); (3) Industrial Facilities Discharge (IFD); (4) Drinking Water Supplies (DRINKS); (5) Water Gages (GAGES); and (6) Water Impoundments (DAMS). This document is one product resulting from a cooperative contractual endeavor between the National Park Service's (NPS) Servicewide Inventory and Monitoring Program, the National Park Service's Water Resources Division (WRD), and Horizon Systems Corporation to retrieve, format, and analyze surface water quality data for all units of the National Park System containing significant water resources. The primary goal of the project is to provide descriptive water quality information in a manner and format that is both consistent with the goals of the Servicewide Inventory and Monitoring Program and useable by park resource managers. The document provides: (1) a complete inventory of all retrieved water quality parameter data, water quality stations, and the entities responsible for the data collection; (2) descriptive statistics and appropriate graphical plots of water quality data characterizing period of record, annual, and seasonal central tendencies and trends; (3) a comparison of the park's water quality data to relevant EPA and WRD water quality screening criteria; and (4) an Inventory Data Evaluation and Analysis (IDEA) to determine what Servicewide Inventory and Monitoring Program "Level I" water quality parameters have been measured within the study area. Accompanying the report are disks containing digital copies of all data used in the report, as well as all components of the report (tables, figures, etc.).

The results of the retrievals for the study area from the IFD, DRINKS, GAGES, and DAMS databases located 32 industrial/municipal dischargers; four drinking water intakes; 14 active or inactive U. S. Geological Survey (USGS), U. S. National Weather Service, and U. S. National Oceanic Survey water gages (including stream, estuary, well, and climate); and 23 water impoundments. The results of the STORET retrieval for the study area yielded 144,291 observations for 695 separate parameters collected by the NPS, USGS, EPA, Virginia Department of Environmental Quality (VDEQ), and Maryland Department of Natural Resources (MDNR) at 149 monitoring stations from 1945 through 1998. Approximately 89 percent of the 144,291 observations within the study area were collected by the VDEQ from 1967 through 1998. Of the 149 monitoring stations, 17 stations were located within the park boundaries (see Station Period of Record Tabulation). Sixteen of these 17 stations were located within the Drewry's Bluff (Fort Darling) Unit and one station was within the Beaver Dam Creek Unit. Of the 149 monitoring stations in the study area, one station (RICH 0009) contained data locked by the MDNR<sup>†</sup>. These locked data are not included in the 144,291 total observations retrieved from STORET for the study area. Thirteen stations within the study area (none within park boundaries) were established but contained no data.

Most of the monitoring stations represent either one-time or intensive single-year sampling efforts by the collecting agencies. Forty-nine stations within the study area (one within park boundaries) yielded longer-term records consisting of multiple observations for several important water quality parameters (see Station Period of Record Tabulation). The station yielding the longer-term record within park boundaries is Beaverdam Creek at the State Route 156 Bridge at Mechanicsville (RICH 0136). The stations yielding the longest-term records within the study area, but outside of park boundaries, are: (1) James River at the U. S. Route 360 Bridge (RICH 0116); (2) Almond Creek at the State Route 5 Bridge (RICH 0094); (3) Chickahominy River at the U. S. Route 360 Bridge (RICH 0134); (4) Falling Creek at the U. S. Route 1 Bridge (RICH 0065); (5) James River at Buoy 157 (RICH 0032); (6) Chickahominy River at the State Route 156 Bridge (RICH 0130); (7) and James River at Buoy 166 (RICH 0069)<sup>††</sup>.

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<sup>†</sup>When data are entered into STORET and locked by the controlling agency (MDNR), results of a STORET retrieval are limited to general station information and any "unlocked" portions of the data. Additional data must be obtained by contacting the controlling agency (MDNR).

<sup>††</sup>Water quality station location descriptions are verbatim from STORET. Any misspellings and abbreviations in STORET are replicated in this document.

Screening criteria consisting of published EPA water-quality criteria and instantaneous concentration values selected by the WRD were used to identify potential water quality problems within the study area. While the criteria represent important threshold concentrations of pollutants, it is important to remember that criteria may have been exceeded due to any number of natural or anthropogenic factors, including errors in field, laboratory, and/or recording procedures. The reader is advised to read the Introduction for additional caveats in interpreting the exceeded criteria in this report. The results of the RICH water quality criteria screen found 21 groups of parameters that exceeded screening criteria at least once within the study area. Dissolved oxygen, pH, chloride, chlorine, cadmium, copper, lead, mercury, selenium, and zinc exceeded their EPA criteria for the protection of freshwater aquatic life. The pH exceeded the EPA criterion for the protection of marine aquatic life. Nitrite, nitrate, nitrite plus nitrate, chloride, barium, beryllium, cadmium, chromium, lead, mercury, nickel, and bis (2-ethylhexyl) phthalate exceeded their respective EPA criteria for drinking water. Fecal-indicator bacteria concentrations (total coliform and fecal coliform) and turbidity exceeded the WRD screening limits for freshwater and marine bathing and aquatic life, respectively.

Dissolved oxygen concentrations were measured 12,314 times at 104 monitoring stations from 1967 through 1998. Of the 11,924 observations used in the criteria analysis (see Media Type Screen in the Methodology for explanation), 352 observations at 44 non-marine stations were less than or equal to the 4 milligrams per liter (mg/L) EPA criterion for the protection of aquatic life from 1968 through 1998.

The pH was measured 7,875 times at 106 monitoring stations from 1945 through 1998. Of the 7,535 observations used in the criteria analysis (see Media Type Screen in the Methodology for explanation), 1,591 observations at 93 stations were outside the pH range of 6.5 to 9.0 standard units (SU) (EPA chronic criteria for freshwater aquatic life) or 6.5 to 8.5 SU (EPA chronic criteria for marine aquatic life) from 1945 through 1998. One-thousand-four-hundred-twenty-nine observations at 89 stations were less than or equal to pH 6.5 from 1945 through 1998. One-hundred-sixty observations at 26 non-marine stations were greater than or equal to pH 9.0 from 1967 through 1994. Two observations at a marine (estuary) station in the James River near Dutch Gap (RICH 0027) were greater than pH 8.5 in 1976. The lowest pH of 1.0 SU was reported at two stations, Chickahominy River at the U. S. Route 360 Bridge (RICH 0134) and Upham Brook at the U. S. Route 1 Bridge (RICH 0146), in March 1975 and September 1988, respectively. The highest pH of 12.3 SU was reported in Almond Creek at the State Route 5 Bridge (RICH 0094) in September 1972.

Turbidity was measured 1,370 times at 41 monitoring stations from 1971 through 1998. Of the 1,216 observations used in the criteria analysis (see Media Type Screen in the Methodology for explanation), 45 observations at 18 stations exceeded the WRD screening criterion of 50 Jackson Candle/Formazin/Nephelometric Turbidity Units from 1974 through 1998. The highest value of 390 JTU was reported in Almond Creek at the State Route 5 Bridge (RICH 0094) in March 1994.

Total coliform concentrations were measured 451 times at 25 monitoring stations from 1967 through 1986. Of the 423 observations used in the criteria analysis (see Remark Code Screen and Media Type Screen in the Methodology for explanation), 206 observations at 24 stations exceeded the WRD bathing water screening criterion of 1,000 Colony Forming Units/Most Probable Number per 100 milliliters (CFU/MPN/100 ml) from 1967 through 1986. The highest value of 9,300,000 MPN/100 ml was reported in the James River near Richmond at Buoy No. 168 (RICH 0089) in July 1968. Fecal coliform concentrations were measured 5,496 times at 71 monitoring stations from 1970 through 1998. Of the 5,453 observations used in the criteria analysis (see Remark Code Screen and Media Type Screen in the Methodology and EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), 2,657 observations at 69 stations exceeded the WRD bathing water screening criterion of 200 CFU/MPN/100 ml from 1970 through 1998. The highest value of at least 240,000 CFU/MPN/100 ml was reported four times at two stations in the James River, below Hatcher Island (RICH 0018) and near Bensley below a deepwater terminal (RICH 0070), during November and October 1971, respectively.

Chloride concentrations (including dissolved and total) were measured 1,564 times at 60 monitoring stations from 1945 through 1998. Of the 1,544 observations used in the criteria analysis<sup>†††</sup>, seven total observations, ranging from 317 mg/L to 8,957 mg/L at five stream stations, in the James River (RICH 0018, RICH 0070, RICH 0092), Chickahominy River at the U. S. Route 360 Bridge (RICH 0134), and Upham Brook at the U. S. Route 1 Bridge (RICH 0146), exceeded the drinking water criterion of 250 mg/L from 1970 through 1995. Four of these seven concentrations also exceeded the acute freshwater criterion of 860 mg/L during 1970. The highest value of 8,957 mg/L was reported in the James River below Goode Creek (RICH 0092) in May 1970.

Total residual chlorine concentrations were measured 55 times at 27 stream stations from 1973 through 1983. Of the 54 observations used in the criteria analysis (see Media Type Screen in the Methodology for explanation), 19 observations at ten stations, in the James River (RICH 0011, RICH 0023, RICH 0032, RICH 0060, RICH 0064, RICH 0069, RICH 0089, RICH 0113), near Ashton Creek at the Sunoco tertiary treatment operation (RICH 0001), and Grindall Creek approximately 100 yards from the mouth of the creek (RICH 0066), exceeded the acute freshwater criterion of 0.019 mg/L from 1973 through 1983. The highest concentration of at least 3.0 mg/L was reported four times near Ashton Creek at the Sunoco tertiary treatment operation (RICH 0001) during 1973 and 1974.

Nitrate concentrations (including dissolved and total as N and dissolved as NO<sub>3</sub>) were measured 4,569 times at 58 non-marine stations from 1945 through 1998. Of the 4,214 observations used in the criteria analysis (see Media Type Screen in the Methodology for explanation), four total as N concentrations, ranging from 32.87 mg/L to 48.19 mg/L at two stations, near Ashton Creek at the Sunoco tertiary treatment operation (RICH 0001) and Upham Brook at the U. S. Route 1 Bridge (RICH 0146), exceeded the drinking water criterion of 10 mg/L for nitrate as N from 1974 through 1980. The highest concentration of 48.19 mg/L was reported near Ashton Creek at the Sunoco tertiary treatment operation (RICH 0001) in May 1974.

Nitrite concentrations (including dissolved and total as N and dissolved as NO<sub>2</sub>) were measured 4,889 times at 56 non-marine stations from 1968 through 1998. Of the 4,531 observations used in the criteria analysis (see Media Type Screen in the Methodology for explanation), seven total as N concentrations, ranging from 1.1 mg/L to 3.5 mg/L at five stream stations, in Grindall Creek (RICH 0066, RICH 0067, RICH 0080) and Proctors Creek (RICH 0019, RICH 0029), exceeded the drinking water criterion of 1 mg/L for nitrite as N from 1976 through 1979. The highest concentration of 3.5 mg/L was reported in Grindall Creek approximately 100 yards from the mouth of the creek (RICH 0066) in October 1978.

Nitrite plus nitrate concentrations (including dissolved and total) were measured 867 times at 51 monitoring stations from 1969 through 1998. Of the 679 observations used in the criteria analysis<sup>†††</sup> (see Media Type Screen in the Methodology for explanation), two total concentrations, 35 mg/L in Gillie Creek at the Government Road Bridge (RICH 0102) and 12.19 mg/L in Grindall Creek approximately 100 yards from the mouth of the creek (RICH 0066), exceeded the drinking water criterion of 10 mg/L in April 1982 and June 1977, respectively.

Barium concentrations (including dissolved and total) were measured 14 times at nine non-marine stations within the park in Drewry's Bluff (Fort Darling) Unit from 1989 through 1996. One total concentration of 4,540 micrograms per liter ( $\mu\text{g}/\text{L}$ ) at a leachate seep at the Fort Darling Landfill (RICH 0039) exceeded the drinking water criterion of 2,000  $\mu\text{g}/\text{L}$  in May 1996.

Total beryllium concentrations were measured 14 times at eight non-marine stations from 1992 through 1996. One concentration of 36  $\mu\text{g}/\text{L}$  at a leachate seep at the Fort Darling Landfill (RICH 0039) within the park's Drewry's Bluff (Fort Darling) Unit exceeded the drinking water criterion of 4  $\mu\text{g}/\text{L}$  in May 1996.

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<sup>†††</sup>Water quality observations collected at marine stations were excluded from the criteria analysis due to the absence of applicable marine criteria for this parameter; however, observations collected at tidally influenced riverine stations may have been included. Depending on tidal conditions at the time of measurement, comparisons of data from tidally influenced riverine stations against the chloride and nitrite plus nitrate freshwater or drinking water criteria may not be appropriate.

Cadmium concentrations (including dissolved and total) were measured 448 times at 55 non-marine stations from 1970 through 1996. Of the 193 observations used in the criteria analysis (see EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), 17 concentrations at 14 stations exceeded the acute freshwater criterion of 3.9 µg/L from 1972 through 1996. Sixteen of these 17 concentrations also equaled or exceeded the drinking water criterion of 5 µg/L from 1972 through 1996. The highest value of 10 µg/L was reported ten times at nine monitoring stations (RICH 0002, RICH 0019, RICH 0035, RICH 0053, RICH 0094, RICH 0096, RICH 0105, RICH 0130, RICH 0145) from 1972 through 1991.

Chromium concentrations (including dissolved and total) were measured 626 times at 56 non-marine stations from 1969 through 1996. Of the 625 observations used in the criteria analysis (see EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), one total concentration of 715 µg/L at a leachate seep at the Fort Darling Landfill (RICH 0039) within the park's Drewry's Bluff (Fort Darling) Unit exceeded the drinking water criterion of 100 µg/L in May 1996.

Copper concentrations (including dissolved and total) were also measured 626 times at 56 non-marine stations from 1969 through 1996. Fifty concentrations at 28 stations equaled or exceeded the acute freshwater criterion of 18 µg/L from 1969 through 1996. The highest value of 615 µg/L was reported at a leachate seep at the Fort Darling Landfill (RICH 0039) within the park's Drewry's Bluff (Fort Darling) Unit in May 1996.

Lead concentrations (including dissolved and total) were measured 584 times at 56 non-marine stations from 1970 through 1996. Seventy-four total concentrations at 27 stations equaled or exceeded the drinking water criterion of 15 µg/L from 1970 through 1991. Three of these 74 concentrations also exceeded the acute freshwater criterion of 82 µg/L during May 1976. The highest value of 414 µg/L was reported in Almond Creek at the State Route 5 Bridge (RICH 0094) during May 1976.

Mercury concentrations (including dissolved and total) were measured 603 times at 56 non-marine stations from 1970 through 1996. Of the 600 observations used in the criteria analysis (see EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), eight concentrations, ranging from 2 µg/L to 7.6 µg/L at seven stations, within the park in Drewry's Bluff (Fort Darling) Unit (RICH 0044, RICH 0047, RICH 0051, RICH 0054) and in the James River (RICH 0069, RICH 0089, RICH 0116), equaled or exceeded the drinking water criterion of 2 µg/L during 1970 and 1991. Six of these eight concentrations also exceeded the acute freshwater criterion of 2.4 µg/L during 1970 and 1991. The highest value of 7.6 µg/L was reported in the James River at Buoy No. 168 (RICH 0089) in September 1970.

Nickel concentrations (including dissolved and total) were measured 454 times at 56 non-marine stations from 1973 through 1996. One total concentration of 634 µg/L at a leachate seep at the Fort Darling Landfill (RICH 0039) within the park's Drewry's Bluff (Fort Darling) Unit exceeded the drinking water criterion of 100 µg/L in May 1996.

Selenium concentrations (including dissolved and total) were measured 92 times at 21 non-marine stations from 1988 through 1996. One total concentration of 26 µg/L in the Chickahominy River at the U. S. Route 360 Bridge (RICH 0134) exceeded the acute freshwater criterion of 20 µg/L in September 1991.

Zinc concentrations (including dissolved and total) were measured 635 times at 56 non-marine stations from 1969 through 1996. Eleven concentrations at eight stations (RICH 0028, RICH 0039, RICH 0069, RICH 0084, RICH 0121, RICH 0131, RICH 0132, RICH 0143) exceeded the acute freshwater criterion of 120 µg/L from 1970 through 1996. The highest value of 3,850 µg/L was reported at a leachate seep at the Fort Darling Landfill (RICH 0039) within the park's Drewry's Bluff (Fort Darling) Unit in May 1996.

Bis (2-ethylhexyl) phthalate concentrations were measured six times at five non-marine stations (RICH 0011, RICH 0039, RICH 0041, RICH 0042, RICH 0049) during 1996 and 1997. Five concentrations, ranging from 8 µg/L to 28 µg/L at four stations, within the park in Drewry's Bluff (Fort Darling) Unit (RICH 0039, RICH 0042, RICH 0049) and in the James River (RICH 0011), exceeded the drinking water criterion of 6 µg/L during 1996

and 1997. The highest value of 28 µg/L was reported at a leachate seep at the Fort Darling Landfill (RICH 0039) within the park's Drewry's Bluff (Fort Darling) Unit in May 1996.

The IDEA conducted for RICH indicates that STORET data exist for all 13 Level I parameter groups in the study area. For the group Chlorophyll, less than 5 percent of the observations were recorded since 1985. Overall, approximately 50 percent of the observations for Level I parameter groups were recorded since 1985. Data for six groups (Alkalinity, Flow, Clarity/Turbidity, Chlorophyll, Sulfates/Total Dissolved Solids/Hardness, and Toxic Elements) were recorded at less than half of the 135 monitoring stations with data. Relative to other parameter groups, data were limited for the group Chlorophyll. Results for 107 of the 126 EPA priority toxic pollutants (consisting of inorganic and organic parameters, metals, pesticides, and PCB's) were retrieved from STORET.

Surface water resources in the study area include the James, Chickahominy, and other rivers; Falling, Beaver Dam, Ashton, Upham, Boatswain, and numerous other creeks and brooks; Falling Creek and many other reservoirs; some lakes and ponds; springs and seeps; and marshes and wetlands. The data inventories and analyses contained in this report indicate that surface waters within the study area have been impacted by human activities. Potential anthropogenic sources of contaminants include municipal and industrial wastewater discharges; landfill operations; stormwater runoff; urban development; agricultural activities; quarrying operations; recreational use; and atmospheric deposition.



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## INTRODUCTION

The National Park Service's (NPS) Organic Act of 1916 states that the mission of the NPS is to promote and regulate the use of national parks, monuments, and other units "... to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." One task embodied by this mission is preserving and protecting water resources and water dependent environments in parks. Ensuring the integrity of park water quality, due to its importance in sustaining natural, aquatic park ecosystems and supporting human consumptive and recreational use, is fundamental to successfully addressing this task. The first step in ensuring the integrity of park water quality is defining historic and extant water quality.

This document represents one product of an ongoing effort by the NPS Water Resources Division (WRD) and the Servicewide Inventory and Monitoring Program to characterize baseline water quality using existing data at park units containing significant natural resources. This effort was initiated in 1993 by the award of a contract to Horizon Systems Corporation to retrieve, format, and analyze surface water quality data from the Environmental Protection Agency's (EPA) Storage and Retrieval (STORET) database system. The scope of work identified in the Request For Proposals outlined several sequential, interrelated project phases, including, but not limited to: (1) determining the water quality retrieval/query area around each park; (2) downloading and assessing the quality of the data from STORET; (3) generating basic water quality summary statistics and graphic plots; (4) reformatting water quality data for compatibility with the park-based Water Quality Data Management System presently under-development; and (5) providing recommendations concerning possible hardware, software, and personnel options for storing combined park databases in a centralized NPS water quality database. This report documents the results of phases one through four of this effort for this park unit.

### **Goal**

The goal of this document is to provide descriptive water quality information in a format usable for park planning purposes (eg. Water Resources Management Plans, Resource Management Plans, and General Management Plans). The report is designed to characterize baseline water quality rather than assess specific water quality problems at a park. This is consistent with the Servicewide Inventory and Monitoring Program's goal of obtaining basic, "Level I", water quality parameters for key waterbodies at each park (National Park Service 1993). Consequently, this report is best used as a reference document to help design new goal-driven water quality monitoring programs rather than as conclusive evidence of previous or existing water quality problems.

### **Purpose**

The purpose of this report is to inventory existing park water quality data; establish baseline water quality at the park; identify potential water quality problems; and establish a park water quality database. This report is intended to enable park resource managers to compare and contrast water quality data collected as part of ongoing inventory and monitoring programs with historical water quality trends. Additionally, this report is intended to foster better designed park-based water quality inventory and monitoring programs in the future. The water quality databases which accompany this report will also lay the groundwork for establishing a NPS water quality database that will allow Regions and Washington Offices to generate regional and national assessments of park water quality.

### **Objectives**

Specific objectives of the study documented in this report are to:

1. Retrieve water quality and related data from the EPA's STORET and other database systems;
2. Develop a complete inventory of all retrieved data;

3. Produce descriptive statistics and appropriate time series and box-and-whiskers plots of water quality data to characterize period of record, annual, and seasonal central tendencies and trends;
4. Compare water quality data with relevant national EPA water quality criteria on a station-by-station and study area basis;
5. Determine the presence and/or absence of the Servicewide Inventory and Monitoring Program's "Level I" water quality parameters within the study area; and
6. Reformat water quality and other related data for use in the park-based Water Quality Data Management System, presently under-development, and other appropriate analytical tools.

## **Document Overview**

This report is comprised of five chapters. The first chapter, this Introduction, provides a brief statement of the study's background; goal, purpose, and objectives; and the key personnel who helped produce the document. This chapter also contains this brief overview of the document's contents and important interpretive caveats to consider when referring to and using this document. The second chapter focuses on the methods, procedures, and databases that were employed to retrieve and analyze water quality data for the park. The third chapter is the user's interpretive guide to chapter four. Chapter three explains how to interpret all the tables and figures presented in chapter four. Chapter four, which likely comprises the majority of the document (unless there isn't much water quality data for the park), contains detailed inventories, descriptive statistics, graphics, and national EPA water quality criteria comparisons characterizing the park unit's water quality data on a station-by-station basis and over the entire study area. This chapter also contains a comparison of park water quality data with the Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameters and a listing of water quality observations that were outside the STORET edit criteria range. Chapter five, the Appendices, contains more specialized materials such as the file names and database structures included on floppy disk(s) with this report; STORET edit criteria; national EPA water quality criteria; Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameters; selected water quality references; and other materials which provide background on the methods, procedures, and databases used or produced by this study.

The water quality and other related data referenced in this report accompany the document on floppy disk. The water quality parameter data file is in DBASE III+<sup>1</sup> format and will be useable in the park-based Water Quality Data Management System presently under-development. The water quality stations, industrial facilities discharges, drinking water intakes, water gages, water impoundments, and River Reach databases are also in DBASE III+ and/or ASCII format for ready-use in Geographic Information Systems (GIS), Computer-Aided Design Systems, or Desktop Mapping Systems.

## **Caveats**

While intended primarily as a reference document, it is important that users peruse the first three chapters and Appendices of this report to better understand and interpret the results presented in chapter four. As a means for identifying potential areas for more intensive study, comparisons of the park's water quality data with relevant national EPA water quality criteria for appropriate designated uses<sup>2</sup> and with the Servicewide Inventory and

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<sup>1</sup>The use and/or mention of specific proprietary hardware or software packages is for informational purposes only and is not intended to connote or denote an endorsement.

<sup>2</sup>The Environmental Protection Agency's Quality Criteria for Water 1995 Final Draft (Silver Book) was the primary source of water quality criteria. In the spirit of the other caveats offered in this section, it is important to recognize that water quality criteria are often revised when new or better information become available.

Monitoring Program's "Level I" water quality inventory parameters have been made. Extreme caution must be exercised in interpreting the results of these comparisons. Observations that exceed water quality criteria may have occurred due to any number of natural or anthropogenic factors, as well as other reasons. For example, STORET is a "user-beware" water quality database system. While there is some rudimentary edit (bounds) checking of any data entered in STORET (See Appendix C), users are basically free to enter their own data. Beyond data entry errors, the possibility of inaccurate data entering the system due to inappropriate measurement techniques, sample mistreatment, and other reasons is a serious concern. Consequently, if observations for a particular parameter frequently exceed the EPA water quality criterion over a prolonged time period, the best approach is to examine in detail the data exceeding the criterion. Questions which should be asked regarding the data include: What water source(s) are manifesting the problem? Does the data make sense? Was it collected by a reputable organization following a sound study plan and employing accepted techniques? If the answers to these questions still cause concern, a specific cause and effect water quality investigation focusing on the parameters of concern may be warranted. Similarly, the absence of particular Servicewide Inventory and Monitoring Program "Level I" water quality parameters from the park only means that no entity or organization has collected and entered this data into the EPA's STORET database. Too frequently, data that are collected in and around NPS units never make it into the EPA's national water quality database. These data may exist in published or unpublished reports, file cabinets, or other databases. Before definitively concluding that no baseline data exist for a particular parameter, these alternative resting grounds for data should be investigated. Such a detailed exploration, however, was beyond the scope of this study.

## **Key Personnel**

Many individuals contributed to the design and implementation of this project. The primary contributors and their roles in the project are briefly mentioned below.

### National Park Service, Water Resources Division:

Dean Tucker was the Contracting Officer's Technical Representative responsible for designing, coordinating, and implementing all aspects of this effort.

Mike Matz coordinated and managed the team which prepared all components of the report.

Gary Rosenlieb provided administrative oversight and was involved in quality control for all tasks related to this project.

Barry Long and Roy Irwin reviewed technical tasks and provided water quality expertise related to data analysis.

Gary Smillie provided hydrologic expertise in the determination of hydrologic seasons.

Greg Harp, Clint Bassett, and Amy Benton helped prepare reports and write the Executive Summaries.

Elizabeth Eisenhauer, Bill Folsom, Dana Griffin, Scott Ratchford, Jeff Ketcham, and Valdete Celaj provided digital cartographic support, both in determining retrieval/query areas and producing maps and graphics.

Kelli O'Connor, J. Chris Echohawk, Curtis Cooper, Adam Henson, Shawndra Mawhorter, Lisa Smith, Ryan Shy, Lisa Dummer, Eric Lord, Adriane Petersen, Margaret Matter, Richard Henderson, Ronda Burns, Aria Brissette, Nancy O'Keeffe, Melanie Schnier, Brett Atkinson, Paul Sorek, and Cara Ellis uploaded water quality data to STORET prior to report preparation.

Jacquie Nolan designed the cover.

Horizon Systems:

Cindy McKay served as Project Manager for Horizon Systems, performed the initial requirements analysis, and was involved in all quality control tasks related to the project.

Alan Cahoon was responsible for automating the procedures which produced the water quality databases and Water Quality Results chapter.

Sue Hanson, P.E., provided technical advice for writing this document.

Dr. Jim Loftis was the data quality analyst for the project.

Armando F. Ballofet, P.E., served as the local technical liaison between Horizon Systems and the NPS.

Other National Park Service:

Several other individuals provided invaluable technical review, comments, administrative support, and/or other assistance, including: Dan Kimball, Bill Jackson, Mark Flora, Gary Williams, John Karish, Brendhan Zubricki, Richard Hammerschlag, Randy Ferrin, Gary Vequist, Mike Martin, Kevin Berghoff, and Dyra Monroe.

## METHODOLOGY

This section provides an overview of the procedures and criteria used to retrieve and analyze water quality data for each park unit. Generating baseline water quality data inventories and analyses for all NPS units is a monumental task. To accomplish this undertaking given a very limited budget, the procedures employed to produce each report had to be as generic and automated as possible. Consequently, customization of reports to individual park needs and issues was not feasible. Moreover, such customization was beyond the scope of this effort which was simply intended to produce baseline water quality data inventories for all parks rather than customized issue-driven reports. During the procedure-development stages of the project, specifications for the final product evolved, within the context of the aforementioned resource constraints, to focus on comprehensive water quality baseline data inventories and concise, descriptive statistical examinations of the available water quality data for each park unit. Detailed below are the data sources and final methods and procedures that were used to create the baseline water quality inventories, analyses, databases, and other products for each park unit. A thorough understanding of the limitations of the data sources and procedures described in this chapter and the next (Interpretive Guide to Water Quality Results) is a prerequisite to intelligent use of the results presented in this document.

### Delineation of Park Study Area

The first step in retrieving water resources-related data for each park was deciding on a procedure to determine the study area boundary. Since water flows through parks, utilizing the park boundary as a simple query/study area was deemed inadequate. On the other end of the continuum, using the entire watershed as the study area was considered superfluous given: (1) the areal extent of certain park watersheds (eg. the entire Mississippi River); (2) the sheer volume of potentially irrelevant data such a large study area could generate; and (3) the resources required to specify the watershed for each park unit. The approach which was ultimately adopted - a modified hydrologic boundary - reflects a compromise between the park boundary and the entire watershed. Thus the study area employed for each park is an area extending at least three miles upstream and one mile downstream from the park boundary. Although these distances are somewhat arbitrary, this approach is easy to automate and was felt to limit the data retrieved, in most instances, to that of most importance to the park. Extending the query area one mile downstream of the park was intended to capture any data immediately downstream of the park which may reflect the quality of the water in the park. A current (as possible) copy of each park's boundary was obtained in digital format directly from the park or digitized from Regional land status maps, U.S. Geological Survey (USGS) quadrangles, or other sources. Using GIS techniques, the boundary was used to create the three miles upstream, one mile downstream buffer. For a few parks with which WRD water quality specialists were very familiar with potential water quality threats and/or valuable sources of data that may lie just outside the study area, the study area may have been tweaked (enlarged) to cover these areas of concern or interest. Unfortunately, a customized study area was not feasible for all park units. Hence, the three miles upstream, one mile downstream buffer was the primary study area employed for most parks. This study area was transferred to the EPA mainframe computer and used as the basis for all water resources-related data retrievals from the data sources described below.

### Data Sources

The EPA maintains many mainframe data systems related to national water resources (U.S. Environmental Protection Agency 1992). Six of these data systems were used for this project:

- STOrage and RETrieval System (STORET) - water quality parameter data, locations of sampling stations, descriptive elements about stations and parameters;
- Industrial Facilities Discharge (IFD) - locations of industrial and municipal point source discharge facilities;

- Drinking Water Supplies (DRINKS) - locations of intake pipes for drinking water supplies;
- Water Gages (GAGES) - locations of USGS and other water gages;
- Water Impoundments (DAMS) - locations of most large water impoundments (greater than 10,000 acre feet at normal pool volume) and many smaller impoundments; and
- River Reach File, Version 3 (RF3) - 1:100,000 scale geographical representation of surface waters (rivers, lakes, etc.) with a unique identifier assigned to each surface water segment and connectivity information useful for routing and navigation.

STORET is the national water quality data repository (U.S. Environmental Protection Agency 1989). Water quality data is entered in STORET by public agencies (federal, state, or local) that collect water samples and/or perform laboratory analysis. As such, STORET is a "user-beware" data system. Although the EPA manages the STORET data system and, since November 1983, has imposed some minimum quality control criteria on the data (See Appendix C), data are generated and input to STORET by the "owner" agencies. Consequently, the EPA does not certify any data within STORET. Currently, there are over 800,000 active and inactive sampling stations and more than 225 million observations covering in excess of 13,000 water quality parameters entered in STORET. The earliest data dates back to the turn of the century. Using the bi-monthly update cycle, user agencies may store results of recent monitoring activities in STORET. Included in STORET is USGS WATSTORE water quality data, which is updated on a monthly basis. Although STORET contains a phenomenal amount of data, it is important to note that data exist in STORET only if the collectors decide to upload their data to the system. Since many agencies and researchers do not upload their data to STORET, the absence of water quality data in the system for a particular area doesn't mean that there has never been any water quality data collected for the area. The data may exist in published or unpublished reports, file cabinets, or in agency-specific databases. Identifying and retrieving these other sources of data were beyond the scope of the present effort. All parameter data and water quality station location data downloaded from STORET within the park's study area are included in DBASE III+ format files on disk(s) accompanying this report (See Appendices A and B).

The data within the IFD database are extracted from the EPA's Permit Compliance System (PCS). IFD contains the facility locations of all industrial and municipal dischargers which require a National Pollutant Discharge Elimination System (NPDES) permit to operate. Over 7,100 municipal, federal, and industrial facilities discharging into the waters of the United States are tracked by PCS and IFD. If any industrial facilities discharges exist within the study area, a file in DBASE III+ format documenting a variety of information about each discharge accompanies this report on disk (See Appendices A and B).

The EPA DRINKS database identifies locations of drinking water supply intakes. This file contains data for 850 supplies which serve more than 25,000 people, and 6,800 supplies which serve between 1,000 and 25,000 people. If any drinking water intakes exist within the study area, a file in DBASE III+ format documenting a variety of information about each intake accompanies this report on disk (See Appendices A and B).

The GAGES data originates primarily with the USGS and copies are maintained on the EPA mainframe computer for ease of integration with other EPA national data systems. Although other agency's water gages, as well as some artificial gages, may appear in GAGES, the vast majority of gages are stream gages belonging to the USGS. The GAGES database contains approximately 36,000 records for both active and inactive gaging stations. If any USGS or other agency stream gages occur within the study area, a file in DBASE III+ format documenting several fields of information about each gage accompanies this report on disk (See Appendices A and B).

The Water Impoundment database was originally compiled by the U.S. Army Corps of Engineers in response to a Congressional inquiry on dam safety hazards (GKY and Associates 1990). The EPA subsequently modified the database for use in water quality investigations. Of the 68,155 dams in the database, 2,125 are considered large (impounding 10,000 acre feet or more at normal pool volume). It is important to note that while the database includes entries for 66,030 smaller dams, estimates place the actual number of dams in the U.S. at several million

(including small farm ponds). If any water impoundments occur within the study area, a file in DBASE III+ format documenting several fields of information about each impoundment accompanies this report on disk (See Appendices A and B).

The RF3 data system is a hydrologic database of surface water features across the U.S. (excluding, at present, Idaho, Oregon and Washington, which currently operate a different system - although this data is expected to be converted to RF3 soon, Alaska and Hawaii). RF3 was created primarily from 1:100,000 scale USGS Digital Line Graph data. RF3 is made up of over 3,000,000 individual "reaches". A reach is generally defined as a portion of surface water between two confluences (U.S. Environmental Protection Agency 1993). The linework underlying RF3 contains over 95,000,000 coordinate points. RF3 is designed to facilitate hydrologic routing, identifying upstream and downstream elements, and specifying the exact location of any point on a stream network. RF3 data exists as a series of traces with associated attributes. The EPA project which is producing RF3 is being conducted in three phases: Compilation, Assessment, and Revision. The Compilation phase is complete except for Idaho, Washington, Oregon, and Alaska. The Assessment phase was completed during the first half of 1994; while the Revision phase was begun in March 1994. One important outcome of the Revision phase is that the reach codes which uniquely identify each surface water feature will change. Consequently, these codes should not be used, at this time, as keys for relating other data to RF3. The RF3 data provided with this document is provisional and should be used only to provide a geographic backdrop for the park's water quality data. RF3 data covering each USGS catalog unit (a geographic area representing a single or multiple drainage basin(s), or some other distinct hydrologic feature (U.S. Geological Survey 1982)) touched by the park's study area is included in ASCII export and DBASE III+ formats on the disk(s) accompanying this report (See Appendices A and B).

For additional information on any of these data systems, contact the EPA Office of Water at (202) 260-7028.

### **Data Retrieval and Analysis Procedures**

The six EPA data systems discussed above reside on the EPA mainframe computer located in Research Triangle Park, N.C. Horizon Systems used a dedicated, leased telephone line with a data transfer rate of 9600 bits per second to download data occurring within the park's study area from all the databases. The bisynchronous communication software and hardware provided error checking during all data transfer procedures.

As described above, the park study/query area boundary was used to select the water quality stations, industrial facilities discharges, drinking water intakes, water gages, water impoundments, and river reaches associated with the park unit. For various reasons, screening criteria (described later in this section) were employed to select appropriate water quality stations, parameters, and observations. Horizon Systems wrote several mainframe programs to automate, to the greatest extent feasible, the STORET data retrieval and storage procedures. Once the data were extracted from the EPA data systems, they were downloaded to a microcomputer for statistical analyses and reformatted into DBASE III+ compatible format.

Specifically, once on the PC, the data were processed to:

- (1) Reformat the data into DBASE III+ format and other database structures;
- (2) Eliminate questionable data outside the STORET edit criteria ranges (See Appendix C);
- (3) Display on a map the location of water quality monitoring stations and other water resources themes;
- (4) Determine the frequency of water quality observations by station, parameter, and station/parameter;
- (5) Generate descriptive period-of-record water quality statistics in a tabular format;
- (6) Generate appropriate descriptive annual and seasonal analyses of the water quality data in a tabular format;
- (7) Plot appropriate period of record time series and annual and seasonal box-and-whisker graphs;
- (8) Compare the water quality data against relevant EPA national criteria; and

- (9) Compare the water quality data against the NPS Servicewide Inventory and Monitoring Program's "Level I" water quality parameters.

Special customized microcomputer programs (primarily written in Clipper and Microsoft Professional BASIC) and procedures were created to address each of these tasks. All reformatted database files are included on disk(s) accompanying this document. The contents of these databases are described briefly below. Complete database structures are included in Appendices A and B. The descriptive water quality tabular statistics (see "Statistical Analyses" below) were computed based upon NPS specifications. Command or batch files were generated to drive STATGRAPHICS 7.0 in order to produce all the time series and box-and-whiskers plots.

### **Park Unit Databases**

Up to seven digital databases in DBASE III+ and other formats have been created for the park by querying the water resources-related data sources described above. The disk(s) containing these databases accompany the report. The contents of each of these databases are discussed briefly below. More detailed documentation of these databases is included in Appendices A and B.

- (A) Water Quality Parameter Data: This database includes all the water quality parameter data downloaded from STORET that passed the STORET Edit Criteria, Date, Station Type, and Phase 0 Parameter screens (described below) and is summarized tabularly and graphically in this document. This constitutes the park's baseline water quality data. Since it is already in digital format, more sophisticated analysis of the data is possible than the descriptive statistics and graphics presented here.
- (B) Water Quality Station Locations: This database consists of the STORET header information describing each station where water quality data was collected. As the latitude and longitude of the station are included in the database, this file is easily imported into the park's GIS.
- (C) Industrial Facility Discharge Locations: This database includes any industrial or municipal point source discharges located within the park's study area. As the latitude and longitude of each discharge facility are included in the database, this file is easily imported into the park's GIS.
- (D) Drinking Water Intake Locations: This database includes any drinking water intakes located within the park's study area. As the latitude and longitude of each intake are included in the database, this file is easily imported into the park's GIS.
- (E) Water Gage Locations: This database includes water (stream, lake, estuary, well, spring, climate, or other) gages located within the park's study area. Most of the gages will likely be stream gages belonging to the USGS. As the latitude and longitude of each gage are included in the database, this file is easily imported into the park's GIS.
- (F) Water Impoundment Locations: This database includes any water impoundments (dams) located within the park's study area. As the latitude and longitude of each impoundment are included in the database, this file is easily imported into the park's GIS.
- (G) River Reach Data: This database includes all stream traces (1:100,000 scale) and attributes for reaches falling within any USGS catalog unit that touches the park's study area. The traces are geo-referenced in ASCII format. The attributes are in both ASCII export and DBASE III+ formats. This information is also readily incorporated into the park's GIS.

The absence of any of these seven files from the disk(s) accompanying the report indicates that there was either no data of this type within the park's study area or the data was unavailable. Several other files are included on the disk(s) accompanying this report, including digital copies of all the figures and tables contained in the document and some other items. Refer to Appendices A and B for detailed documentation of these files. Not included on

disk is an Encyclopedia File (for WRD reference) that documents the minimum and maximum values for each water quality parameter and the parks in which those values were recorded. When Baseline Water Quality Data Inventory and Analysis reports have been completed for all parks, this Encyclopedia File will be available upon request from the NPS WRD.

## **Screening Methodologies and Procedures**

Developing automated or semi-automated procedures to produce baseline water quality inventories and analyses for all national park units required constant testing and debugging of procedures. Three parks, Rock Creek Park, Yellowstone National Park, and Indiana Dunes National Lakeshore, were used to pilot test and refine the automated procedures. It became evident, after a preliminary analysis of all the downloaded STORET data, especially for Indiana Dunes National Lakeshore, that the specifications for the graphical analyses could generate hundreds (possibly thousands) of plots, many of which would not necessarily be useful. Also, there were many stations; parameters; and/or observations downloaded that were not part of the study's objectives; not overly useful; or of dubious quality. In order to reduce the number of graphical plots (time series, annual and seasonal box-and-whiskers) to fit within project resources, various screening criteria were investigated. Ultimately, a comprehensive set of screening criteria were developed to reduce the number of graphical plots. After initial counts of the total number of possible time series and annual and seasonal box-and-whiskers plots were generated, these counts were used to decide which screening criteria would be applied to limit the number of these plots produced for the park unit. Additional screening criteria were employed to restrict the tabular descriptive statistics results to only those deemed useful to the park. Table A provides the categories of screening criteria and to which analyses the screens were applied. A "yes" entry in the table means that the screening category eliminated or prevented data from appearing in certain tables and plots contained in the document. Consequently, in understanding how data from STORET was used in this report, it may be helpful to keep in mind the three general types of screening criteria: (1) screens that apply to stations; (2) screens that apply to certain parameters at stations; and/or (3) screens that apply only to particular observations of parameters at stations. A detailed description of each of the screening criteria categories follows this table. *It is important to note that statistics in "Inventory" reports may not be consistent with statistics in "Overview" reports since different categories of screening criteria were applied.* Also, if attempting to replicate the results of the statistical and graphical analyses presented in this document, be sure to follow the same screening methodologies.

### STORET Edit Criteria

As mentioned previously, STORET is a "user-beware" data system. As the EPA doesn't certify any data in STORET, public agencies enter and are responsible for the quality of their own data. Only data entered since November 1983 have been subjected to any rudimentary edit/bounds checking. Agencies entering data since this date can elect to override the edit/bounds checking for individual observations. USGS WATSTORE water quality data is entered into STORET without any EPA edit/bounds checking to ensure data integrity between WATSTORE and STORET. Unfortunately, during the course of our pilot tests, erroneous USGS and EPA water quality data values were discovered. In order to eliminate as much "bad" data as possible, all water quality data downloaded from STORET was subjected to automatic edit/bounds checking (STORET Edit Criteria contained in Appendix C) for the 190 most common parameters. Observations falling outside the STORET Edit Criteria were documented (See the Water Quality Observations Outside STORET Edit Criteria for Park section in the Water Quality Results chapter) and then retained or discarded from the database and all tables and plots based on whether the value was judged as being in the realm of possibility. Although the STORET Edit Criteria screen likely removed some "bad" data for these common parameters, the probability of other erroneous data in the database is high. Be sure to consult the Caveat section in the Introduction.

Table A. Categories of Screening Criteria and to Which Output Products They Apply (A "yes" Entry Means the Screening Category Eliminated or Prevented Data From Being Used in the Product):

Screening Category	Data Download	Overview Tables	Inventory Tables	Annual Tables	Seasonal Tables	Standards Tables	Plots (All)
<b>STORET Edit Criteria</b>	yes	yes	yes	yes	yes	yes	yes
<b>Date</b>	yes	yes	yes	yes	yes	yes	yes
<b>Station Type</b>	yes	yes	yes	yes	yes	yes	yes
<b>Phase 0 Parameter</b>	yes	yes	yes	yes	yes	yes	yes
<b>Phase 1 Parameter</b>	no	no	yes	yes	yes	yes	yes
<b>Media Type</b>	no	no	yes	yes	yes	yes	yes
<b>Remark Codes</b>	no	no	yes	yes	yes	yes	yes
<b>Composite Type</b>	no	no	yes	yes	yes	yes	yes
<b>Phase 2 Parameter</b>	no	no	no	no	no	no	yes
<b>Observations/Period of Record</b>	no	no	no	yes	yes	no	yes

### Date Screen

Every water quality observation in STORET typically has a sampling date associated with it. Unfortunately, STORET does not prevent users from entering incorrect dates. Consequently, any water quality observation with an incorrect and/or suspect date (eg. a month greater than 12; a day greater than 31; or a sample date later than the STORET retrieval date) were discarded.

### Station Type Screen

STORET contains data from a wide variety of stations classified by the type of waterbody in which samples were collected. As this project's purpose was to inventory and analyze surface-water quality, the following surface-water station types were retrieved (clarification provided in parentheses):

#### Station Types Included In Retrieval

- (a) STREAM
- (b) CANAL
- (c) LAKE
- (d) RESERV (Reservoir)
- (e) SPRING
- (f) FWTLND (Fresh Water Wetland)
- (g) SWTLND (Salt Water Wetland)
- (h) ESTURY (Estuary)
- (i) OCEAN

Ground water and/or other station type data may have been retrieved if the entering agency classified the station type incorrectly. Rectifying this error was beyond the scope and resources of this project.

### Phase 0 Parameter Screen

Nearly all water quality parameters associated with each station type listed above were retrieved. The only exception to this was the exclusion of most of the STORET administrative parameters. A complete list of STORET administrative parameters is included in Appendix D. The few administrative parameters that were included in the retrievals are as follows:

<u>Code</u>	<u>STORET Administrative Parameter Description</u>
00027	Code No. for Agency Collecting Sample
00028	Code No. for Agency Analyzing Sample
00063	Sampling Points, Number of In a Cross Section
00111	Ratio of Fecal Coliform to Fecal Streptococci
00115	Sample Treatment Code (1=Raw, 2=Treated)
34772	NPDES Number, Cross Reference
45580	Method of Analysis
74065	Stream Flow Class
74066	Annual Runoff
74067	Soil Classification
74068	Water Quality Designated Use Classification

### Phase 1 Parameter Screen

Some of the data retrieved from STORET was not suitable for statistical or graphical analysis. Consequently, this screening criterion eliminated all parameters which were not suitable for statistical or graphical analysis within the context of this project. The full list of these parameters is presented in Appendix E. Examples of parameters excluded from statistical and graphical analysis include the administrative parameters mentioned above, land use acreage, encoded values, dates, latitude/longitude, etc. Excluded parameters do, however, appear in the Parameter Period of Record and Station/Parameter Period of Record (two of the "Overview" Tables), as well as in the water quality parameter file included on disk(s) accompanying this report.

### Media Type Screen

Water quality samples can be taken in a variety of aqueous media. Water quality data were retrieved from STORET only if the media were WATER or VERT (vertically integrated). WATER and VERT samples comprise the overwhelming majority of samples in STORET. The media screen eliminated the following water quality sampling media:

<u>Media Screen</u>	<u>Description</u>
BOTTOM	Sampled At the Bottom
DREDGE	Sampled By Dredge
PORE	Pore Sample
CORE	Core Sample

### Remark Code Screen

STORET enables the agency collecting water quality samples to provide a qualifying remark for each parameter observation. These remarks provide additional information about the measured or observed value entered into STORET (See Appendix B - Parameter Data File for a complete listing and description of all remark codes). Based on the STORET remark codes, two potential screens were applied to water quality observations based on whether the measured value was used in subsequent analyses: (1) Elimination or (2) Modification/Inclusion.

*Elimination:*

Non-composite water quality parameters with the remark codes presented in Table B were eliminated from the period of record, annual, and seasonal descriptive statistics and graphics. Not including observations with these remarks was justified by the fact that most of the remarks: (A) indicate either less confidence in the measured value; (B) are remarks for nominal or categorical data that doesn't lend itself to statistical analysis; or, (C) complicate the statistical analysis beyond the scope of this effort. Observations containing these remark codes comprise a very small fraction of the data. Although statistical analyses weren't undertaken on this data, all water quality observations, regardless of remark code, are included on disk(s) accompanying this report. If you re-analyze this data in order to replicate the results presented here, be sure to eliminate all non-composite observations with the remark codes presented in Table B.

Table B. Non-composite Parameters With the Following Remark Codes Were Eliminated From Statistical and Graphical Analysis:	
Remark Code	Description of STORET Remark Code
F	Female Species.
J	Estimated, Not the Result of Analytic Measurement.
M	Presence Verified, But Not Quantified, Below Quantification Limit. For Species, Male. For Oxygen Reduction Potential, Indicates Negative Value.
N	Presumptive Evidence of Presence.
O	Analysis Lost.
V	Analyte Was Detected In Sample and Method Blank.
W	Less Than Lowest Value Reportable Under Remark "T".
Z	Too Many Colonies Were Present to Count (TNOC), Value Represents Filtration Value.

*Modification/Inclusion:*

Water quality parameter observations with the remark codes presented in Table C were halved prior to inclusion in period of record, annual, and seasonal descriptive statistics and graphics. These remark codes deal with observations that were below the detection limit for the parameter. The common water quality data analysis convention for these remark codes is to use half of the detection limit in statistical analyses (Ward, Loftis, and McBride 1990; Gilbert 1987). Although this is a somewhat defensible treatment of observations below the detection limit, the statistics that may be computed using these halved values may not be defensible. Consequently, any computed statistics in inventory, annual, or seasonal tables that are comprised of 50% or more K, T, and U remark codes are footnoted "Computed with 50% or more of the total observations as values that were half the detection limit." This will provide the user with some caution in using and interpreting these results. Water quality data included on disk(s) accompanying this report that may have these remark codes are stored as the original entry (detection limit). If you re-analyze this data in order to replicate the results presented here, be sure to substitute half the detection limit value in the database whenever these remark codes are encountered.

Table C. The Value of Water Quality Parameters With the Following Remark Codes Were Halved (Half of the Detection Limit Entered In STORET) Prior to Inclusion In Descriptive Statistics and Graphics:

<b>Remark Code</b>	<b>Description of STORET Remark Code</b>
K	Off-scale Low, Actual Value Not Known, But Known to Be Less Than Value Shown.
T	Less Than Detection Criteria.
U	Analyzed For But Not Detected, Value is Detection Limit For Process Used. If Species, Undetermined.

#### Composite Type Screen

Sometimes data entered in STORET represent something other than a single measurement at one location at one point in time. These samples are typically referred to as composite samples due to the fact that they vary temporally and spatially. Consequently, the observation entered into STORET for composite data is typically a computed value that summarizes the data over time and/or space. Such data complicate statistical and graphical analyses and must be handled separately. Such treatment was beyond the scope of this study; although composite values typically represent only a fraction of STORET observations. The composite type screen eliminates all composite observations from statistical and graphical analyses, except those with a composite type code of "A" that have a one day or less sampling period and those with a composite type code "D". All water quality observations, regardless of composite type code, are included on disk(s) accompanying this report. If you re-analyze this data in order to replicate the results presented here, be sure to exclude all composite observations except those with a code of "A" that have a one day or less sampling period and those with a code of "D". Table D presents a list of possible STORET composite type codes.

Table D. Possible STORET Composite Type Codes

<b>Composite Type Code</b>	<b>STORET Composite Type Description</b>
A	Average
H	Maximum
L	Minimum
N	Number of Observations
#	Number of Observations
S	Standard Deviation
U	Sum of Squares
V	Variance
C	Coefficient of Error
X	Coefficient of Variance
E	Skewness
F	Kurtosis
Z	Number of Obs. That Exceed An Established Limit
%	Precision
\$	Accuracy
B	N/A
D	Indicates Replicate Sample

#### Phase 2 Parameter Screen

Due to budgetary limitations, the number of graphical plots (time series, annual and seasonal box-and-whiskers) produced had to be manageable - typically no more than 100 total plots. After scrutinizing the results of the pilot tests and the Baseline Water Quality Data Inventory and Analysis Reports produced for the first group of parks, the 19 parameters which, typically, were the most frequently measured at nearly all stations were water temperature, stage, discharge, and various meteorological measurements (See Table E). Consequently, most of the graphical plots produced would be of water temperature, stage, discharge, and meteorological conditions. Although these are important parameters, particularly in conjunction with other water quality parameters, it was felt that plotting resources would be better allocated to other water quality parameters. Consequently the STORET parameter codes listed in Table E never generated graphical plots. It is important to note, however, that these parameters are included in all other aspects of the project, including all applicable period of record, annual, and seasonal descriptive statistics tables.

Table E. Frequently Measured STORET Codes That Were Prevented From Generating Plots

<b>STORET Parameter Code</b>	<b>STORET Parameter Description</b>
00003	Sampling Station Location, Vertical (Feet)
00010	Water Temperature (Degrees Centigrade)
00020	Temperature, Air (Degrees Centigrade)
00021	Temperature, Air (Degrees Fahrenheit)
00025	Barometric Pressure (MM of HG)
00032	Cloud Cover (Percent)
00035	Wind Velocity (Miles Per Hour)
00036	Wind Direction in Degrees from Trun N (Clockwise)
00040	Wind Direction (Azimuth)
00045	Precipitation, Total (Inches Per Day)
00046	Precipitation, Total (Inches Per Week)
00052	Humidity, Relative (Percent)
00061	Stream Flow, Instantaneous (CFS)
00065	Stream Stage (Feet)
81903	Depth of Bottom of Water @ Sample Site (Feet)
82553	Rainfall In 1 Day Inclusive Prior to Sample (Inches)
82554	Rainfall In 7 Days Inclusive Prior to Sample (Inches)
82371	Rainfall In 3 Days Inclusive Prior to Sample (Inches)
82372	Rainfall In 14 Days Inclusive Prior to Sample (Inches)
85599	Precipitation, Total/Period-Rain Equivalent (Cm/Sample)

#### Observations/Period of Record Screen

Despite never plotting water temperature, stage, discharge, and meteorological measurements, the number of plots generated by some parks still exceeded the 100 plot limit. Also, some rationale was needed to plot only those parameters with sufficient data density to make a meaningful statistical graphic. For example, time series plots comprised of only a few observations or annual or seasonal box-and-whiskers plots with limited observations and/or data in only one or two years or seasons are not very informative. Consequently, a number of plotting criteria were developed to limit the number of time series and box-and-whiskers plots to, at most, 100 informative graphics by using each parameter's number of observations and period of record. Similar, albeit less stringent criteria, were used for including results of annual and seasonal analyses in descriptive statistics tables. Consequently, there are more summaries of annual and seasonal results in tables than in graphics. Whenever an entry in an annual or seasonal table generated a plot, this entry was footnoted to notify the reader of the presence of the graphic. Due to differing quantities of data at parks, different screening criteria were employed. The same

criteria for appearance in seasonal and annual tables were used for all parks. Table F presents the least stringent plot screens.

Table F. Least Stringent Plot Screening Criteria Used to Limit the Number of Plots Generated

Time Series:

To generate a time series plot, a station/parameter combination must have a period of record of at least 2 years and a total of at least 8 observations.

Annual Analysis:

To generate an annual box-and-whiskers plot, a station/parameter combination must have at least 9 observations in each of at least 4 years. The years do not have to be consecutive.

Seasonal Analysis:

To generate a seasonal box-and-whiskers plot, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years. The years do not have to be consecutive.

The exact three plot screens used varied by park unit and are documented in the Overview section of the Water Quality Results chapter. If your park's plotting criteria deviated from these least stringent criteria, it is because too many plots would have been generated using these criteria.

The criteria used for appearance of station/parameter combinations in annual and seasonal analysis tables are presented in Table G. These tabular criteria, which are actually the least stringent plotting criteria, were constant from park to park.

Table G. Criteria Used for Generating Entries in Annual and Seasonal Analysis Tables

Annual Analysis:

For an entry to appear in an annual table, a station/parameter combination must have at least 9 observations in each of at least 4 years. The years do not have to be consecutive.

Seasonal Analysis:

For an entry to appear in a seasonal table, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years. The years do not have to be consecutive.

## Statistical Definitions

Since this report is intended only to characterize historical and/or existing water quality at the park rather than address specific water quality problems, only simple descriptive statistics are presented. Inferential and non-parametric statistical analysis to examine relationships and trends were beyond the scope of the study. The complete water quality dataset is provided on disk accompanying this report to afford the opportunity for more detailed exploratory data analysis. The descriptive statistics are included in the inventory, annual, and seasonal tables. Table H provides a brief definition of each descriptive statistic provided for each parameter at a station.

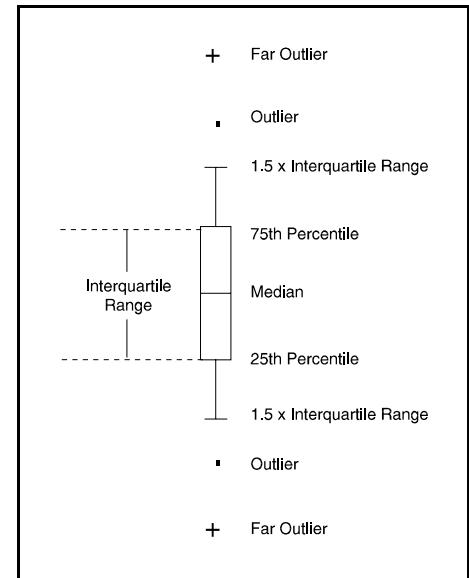
Table H. Definition of Descriptive Statistics Contained in Inventory, Annual, and Seasonal Tables

Observations:	The number of samples collected.
Median:	The median is the 50th percentile or the value in a dataset sorted in ascending order that exceeds 50% of all observations, yet is also exceeded by the remaining 50% of all observations.
Mean:	The sum of all observations collected divided by the number of observations.
Maximum:	The maximum value observed.
Minimum:	The minimum value observed.
Variance:	This is a measure of variability or dispersion of the observations; or, in other words, describes how many observations are close (or far), from the mean. It is calculated as the weighted average of the squared deviations from the mean.
Standard Deviation:	The positive square root of the variance.
10th Percentile:	The value in a dataset sorted in ascending order that exceeds 10% of all observations, yet is itself exceeded by the remaining 90% of all observations.
25th Percentile:	The value in a dataset sorted in ascending order that exceeds 25% of all observations, yet is itself exceeded by the remaining 75% of all observations. The 25th percentile is also known as the first quartile.
75th Percentile:	The value in a dataset sorted in ascending order that exceeds 75% of all observations, yet is itself exceeded by the remaining 25% of all observations. The 75th percentile is also known as the third quartile.
90th Percentile:	The value in a dataset sorted in ascending order that exceeds 90% of all observations, yet is itself exceeded by the remaining 10% of all observations.

As with the tabular descriptive statistics, the scope of the project limited the generation of exploratory graphics to time series plots and annual and seasonal box-and-whiskers plots. Plots were only generated, however, provided the parameter met or exceeded the relevant plotting criteria specified in the previous section.

Time series plots display the parameter concentration on the Y-axis and the date on the X-axis. This provides the user with a visual feeling for not only the parameter's concentration and variability over time, but also the density of data in different time periods. The time series plots provide a visual representation of the data in the basic station inventory. Due to software limitations, a line connects each measured value in sequence regardless of the time period between samples. Readers are cautioned not to assume that the concentration of the parameter between any two data points can be represented by a straight line. It is likely that the concentration varied between any two observations, particularly if the observations are separated by a significant time period.

The annual and seasonal box-and-whisker plots provide a graphical overview of the measured data and give the user a better understanding of the data's distribution and possible outliers. In essence, the box-and-whisker plots provide a visual representation of the data contained in the annual and/or seasonal tables. The interpretation of the boxes is provided in the figure to the right. Each box encompasses the middle 50 percent of measured values (from the 75th to 25th percentiles). The difference between the 75th and 25th percentiles is also known as the interquartile range. The horizontal line inside each box is the median or 50th percentile. The lines which extend out from each end of the box are the whiskers. The whiskers extend out from first quartile (25th percentile) and third quartile (75th percentile) to the smallest data point within 1.5 interquartile ranges from the first and third quartiles. Observations that extend beyond the whiskers are known as outliers. Far outliers are observations whose values lie more than three interquartile ranges below the first quartile or above the third quartile. These are designated with plus signs.



## **INTERPRETIVE GUIDE TO WATER QUALITY RESULTS**

This interpretive guide discusses each of the products presented in the next chapter - Water Quality Results. This chapter highlights how each of the tables and figures were prepared and how they can be used. Each subheading in this chapter corresponds to a particular product in the subsequent Water Quality Results chapter.

### **Overview**

The Overview provides a brief one-page summary of the results of the various database retrievals for both the study area and the park. The study area results include the park results since the study area encompasses the park and all lands and waters within at least 3 miles upstream and 1 mile downstream of the park. Thus, the GIS estimated acreage of the study area should always be greater than the park acreage. The park acreage was computed from the digital boundary that was obtained for the park. More than likely this acreage will differ, perhaps significantly, from the "official" published acreage for the park due to the spatial and temporal accuracy of the digital boundary, treatment of inholdings, and other concerns. The number of STORET stations is the number of locations within the study area and park where an agency monitored (or intended to monitor) water quality. The number of stations with no data reveals the number of stations created in STORET for which water quality data were never entered. The number of stations with no statistical analysis reports the number of stations in the study area and park that contain data not amenable to normal parametric statistics. The number of longer term stations indicates the number of stations in the study area and park with at least 6 parameters having periods-of-record extending 2 years with an average of at least 1 observation per year over the period-of-record. The date of STORET retrieval is the calendar date when Horizon Systems downloaded all the data from STORET. Thus, the report documents all data entered in STORET prior to the retrieval date. Keep in mind that an agency can upload archival data at any time. Consequently, a retrieval date only guarantees that as of that date, this report contains all the data that had been entered into STORET. The period of record is the earliest date for which water quality data exist in STORET for the study area and park up to the date when the most recent data were entered prior to the retrieval date. The number of parameters measured is the number of unique water quality parameters measured within the study area and park and entered in STORET. The number of water quality observations is the sum of the total number of observations across all parameters within the study area and park. The number of industrial/municipal facilities discharges, drinking water intakes, water gages, and water impoundments are the number of each of these entities found within the study area and park. The number of time series, annual, and seasonal plots are the number of these different types of graphics produced by station/parameter combinations within the study area and park using the plotting criteria described in the previous chapter. The hydrologic seasons, described below, are the seasons used for the seasonal water quality data analysis. The time series, annual, and seasonal criteria are the plot and tabular screening criteria described in the previous chapter.

### **Regional Location Map**

The Regional Location Map provides a small scale, general representation of the park and study area location within the United States. Digital, reproducible copies of this graphic are included on the disk(s) accompanying this report.

### **Water Quality Monitoring Locations Map(s)**

The Water Quality Monitoring Locations Map(s) usually provides a larger scale representation of the park and study area than the Regional Location Map. This map indicates the locations within the study area where water quality has been monitored and the data entered into STORET. The water quality monitoring stations are labelled sequentially with the rightmost significant digits. The station names were assigned in numerically ascending order by latitude (for parks with a greater north-south extent than east-west) or longitude (for parks with a greater east-

west extent than north-south). Thus, this map serves as a visual index to the water quality data contained in the report. Since the 1:100,000 scale hydrography (from the River Reach File Ver. 3.0 or other sources) is displayed on the map, users can refer to the map to locate the station number on the reach in which they are interested and then find the appropriate section in the report that documents the water quality at that station. If the scale allows, USGS catalog units are also displayed on the map to provide an approximation of drainage basins. More than one Water Quality Monitoring Location map may be presented if the scale requires breaking the area into multiple maps for legibility. If multiple maps are necessary, an index map showing the geographic extent of each sub-map or panel will be present. Digital, reproducible copies of this graphic are included on the disk(s) accompanying this report. The digital, geo-referenced data files documented in Appendices A and B will allow the park to create water quality monitoring stations as a coverage in their GIS.

### **Dischargers, Drinking Intakes, Gages, and Impoundments Map(s)**

The Dischargers, Drinking Intakes, Gages, and Impoundments Map(s) displays the same information as the Water Quality Monitoring Location Map(s) except the water quality stations are replaced by industrial/municipal facilities discharges, drinking water intakes, active and inactive gage locations, and water impoundments. This map also serves as a visual index allowing the user to determine the identification code of each discharger, drinking intake, gage, or impoundment. This number can then be used to obtain additional information about the entity on the following page of the report or to refer to the more detailed database files accompanying the report on disk. These more detailed database files are geo-referenced (See Appendices A and B), thus allowing the park to create these coverages in their GIS. More than one Dischargers, Drinking Intakes, Gages, and Impoundments map may be presented if the scale requires breaking the area into multiple maps for legibility. If multiple maps are necessary, an index map showing the geographic extent of each sub-map or panel will be present. Digital, reproducible copies of this graphic are also included on the disk(s) accompanying this report.

### **Industrial Facilities Discharges, Drinking Water Intakes, Water Gages, and Water Impoundments Table**

This table provides some additional information about each of the discharges, drinking intakes, water gages, and water impoundments displayed on the previous map(s). This information generally includes the site identification number; the station or facility name; an address or some other indication of location; and some other pertinent information. More detailed information about each of these entities is contained in the database files on disk accompanying the report (See Appendices A and B).

### **Representative Mean Annual Hydrograph for Seasonal Analysis**

One component of the water quality data analysis contained in the document is a seasonal analysis of the data (where adequate data exist). In order to undertake this analysis, some representation of the park's seasons was required. Seasons can be based on many factors (eg. hydrologic, climatic, recreational use, etc.). Since project resources did not allow us to contact every park and discuss with resource management staff what appropriate seasons may be for the park, WRD staff elected to adopt primarily a hydrologic/climatic definition of the seasons which uses a process of hydrograph separation to glean seasons from stream discharge patterns. The procedure employed to make these determinations was as follows:

- (1) Find the nearest USGS Hydro-Climatic Data Network (HCDN) station (U.S. Geological Survey 1992) to the park that is most representative of streamflow conditions at the park. The HCDN is basically a subset of USGS streamflow stations, including only those stations that are unaffected by artificial diversions, storage, or other disruptions of the natural channel. All HCDN stations generally have at least a 20 year period of record. Consequently, discharge patterns at these stations should reflect only hydrologic and climatic influences. For the most part, selected HCDN sites were typically within 15-20 miles of the park. In some parks where WRD staff were aware of the existence of a stream gage located within the park that would be more representative of park waters even though it wasn't an HCDN site, this gage was selected.

- (2) Retrieve the daily discharge values for the selected station from the USGS Daily Values File and generate a mean annual hydrograph and a box-and-whiskers plot of daily flows by month.
- (3) Interpret the plots based on our knowledge of the hydrologic regime at these parks and assign seasons.

This approach, used for the majority of parks, assumes that most water quality data at the park will be found in streams and that the discharge pattern of the selected stream is representative of the seasons for all park waterbodies. Although this assumption may be weak for certain parks, project resources did not allow a more thorough investigation. For parks where there wasn't any stream gage (HCDN or otherwise) deemed representative of park waters, precipitation records from a nearby meteorological station were obtained from the National Climatic Data Center. Plotting daily average precipitation and box-and-whiskers of monthly precipitation sums allowed WRD hydrologists to make a rough approximation of climatic seasons for use in analyzing the water quality data.

Again, it is important to note the many ways of defining "seasons" and thus the limitations of the seasonal analysis contained in this document. For certain parks it may be more useful to perform a seasonal analysis with seasons defined by recreational use patterns or some other natural or anthropogenic factor. This option is available to the park since all the water quality data analyzed in this document is contained on disk(s) accompanying this report. Digital, reproducible copies of this seasonal analysis graphic are also included on the disk(s) accompanying this report.

### **Contacts for Agency Codes Retrieved**

This table provides a list of the organizations who have entered data into STORET. A contact name at the organization and a phone number are also supplied. The agency code in the first column is the key for identifying which stations belong to that agency. This code will appear in the first line of each station's inventory. Although the agencies listed in this table are potential partners for future water quality monitoring or management endeavors, don't be surprised if the name of the contact and/or the telephone number is out of date. This information is entered when an agency first creates a station. The agency may not update this information when the initial contact moves on or the telephone number changes. Nonetheless, it is likely that the contact or someone else at the agency may be able to provide you with project reports or other information relative to the agency's data. A digital copy of this table accompanies this report on disk (See Appendices A and B).

### **Quantity of Data Retrieved by Agency Code**

This table displays the period-of-record; numbers of water quality stations, longer-term stations, and stations without data; total number of water quality observations; and the number of unique water quality parameters measured by each agency within the study area and park boundary. Using this table, a park can quickly determine which agencies collect the most data in and around the park and whether they have monitored recently. A digital copy of this table accompanies this report on disk (See Appendices A and B).

### **Station Period of Record Tabulation**

The Station Period of Record Tabulation provides a quick overview of the names of all the stations within the study area where water quality has been monitored and data entered into STORET. It also furnishes the total number of observations taken at each station and the frequency of observations between certain dates: (1) 01/01/85 until the most recent date data were measured; (2) 01/01/75 - 12/31/84; and (3) prior to 01/01/75. The station identification number, the four character park abbreviation code followed by a four digit number, provides the means to jump from a particular station in the table to the statistical and graphical analyses for this station contained in the Station-By-Station Results section. The Station Period of Record Tabulation reveals which water

quality stations were situated within the park as defined by the park's GIS boundary. The Station Period of Record Tabulation also footnotes longer-term water quality stations. Longer-term stations are those that have at least 6 parameters with an average of one or more observations per year for those parameters during a period of record extending at least two years. Note that although a station may not be flagged as longer-term, it can still harbor much important data (albeit for only a few parameters or over a very long term with just a few observations). A digital copy of this table accompanies this report on disk (See Appendices A and B).

### **Parameter Period of Record Tabulation**

The Parameter Period of Record Tabulation provides a complete listing of every water quality parameter ever measured in the study area and entered into STORET. This table is a summation of all the water quality observations for each parameter across all stations in the study area. Like the Station Period of Record Tabulation, the total number of observations for each parameter and the frequency of observations between: (1) 01/01/85 until the most recent date data were measured; (2) 01/01/75 - 12/31/84; and (3) prior to 01/01/75 are provided. This table is handy for quickly assessing whether particular parameters have been measured in the study area. The Parameter Period of Record Tabulation also shows how many in-park (and total) water quality stations contained data for each parameter. Some administrative parameters and parameters not suitable for statistical analysis within the context of this project (as discussed in the Screening Methodologies and Procedures section of the Methodology chapter) are listed in the Parameter Period of Record Tabulation, but not in the Station-By-Station Results section. A digital copy of this table accompanies this report on disk (See Appendices A and B).

### **Station/Parameter Period of Record Tabulation**

The Station/Parameter Period of Record Tabulation combines the information found in the Station Period of Record Tabulation and the Parameter Period of Record Tabulation. This table provides a listing of all the stations where a particular water quality parameter was measured in the study area and the data entered into STORET. The table provides the start and end dates of the period of record of each parameter at each station; the number of years of measurement (computed from the start and end dates); whether the station/parameter combination occurred within the park boundary; the total number of observations for each parameter at each station, and whether a time series (T), annual (A), and/or seasonal (S) plot was generated for the station/parameter combination in the Station-By-Station Results section. This table is very useful when you need to determine at which locations within the study area (or park) particular parameters were monitored and how much data was collected there. Some administrative parameters and parameters not suitable for statistical analysis within the context of this project (as discussed in the Screening Methodologies and Procedures section of the Methodology chapter) are listed in the Station/Parameter Period of Record Tabulation, but not in the Station-By-Station Results section. A digital copy of this table accompanies this report on disk (See Appendices A and B).

### **Station-By-Station Results**

Probably the most voluminous portion of the document is the Station-By-Station Results. Here the results of the water quality analyses for each station are presented in sequence. The results include the station inventory; parameter inventory; EPA water quality criteria analysis; and, as applicable, time series graphics and annual and seasonal tables and box-and-whiskers graphics. Each of these products are discussed below.

### *Station Inventory for Station*

Each station's data commences with its Station Inventory. The Station Inventory provides the descriptive attributes about each water quality monitoring station contained in STORET. This includes a variety of locational information such as a verbal description, the Federal Information Processing codes for county and state, latitude and longitude, and other items; the station type (stream, spring, estuary, etc.); monitoring agency; creation date; indices to the River Reach File; whether the station lies within the park boundary; and several other attributes. This water quality station location data is also contained on disk(s) accompanying the report (See Appendices A and B).

### *Parameter Inventory for Station*

Following the descriptive attributes about a station is the Parameter Inventory for the station. The Parameter Inventory provides a complete inventory and descriptive summary of all the water quality parameter data for the station. This table furnishes the parameter STORET code and name; the period of record for this parameter at this station; and the descriptive statistics defined in the Statistical Definitions in the previous chapter. Three different footnotes can appear on a parameter's descriptive statistics. Two asterisks (\*\*) in the 10th, 25th, 75th, or 90th percentile columns indicates that there was insufficient data to compute these statistics for this parameter. Percentiles were not computed unless the parameter had at least 9 observations. Two number signs (##) next to the number of observations indicates that more than 50 percent of the observations entered into the computations as values that were taken to be half the detection limit. Caution should be employed in interpreting and using statistical results when more than half the values are set to half the detection limit. The letter "p" following a numeric STORET parameter code in the Parameter Inventory indicates that a time series plot was produced for this parameter at this station. Digital, reproducible copies of the Parameter Inventory tables are contained on the disk(s) accompanying this report.

Two downloaded parameter groups, pH and bacteriological, received special treatment whenever descriptive statistics were computed in the Parameter Inventory (as well as subsequent annual and seasonal tables). Whenever pH appears in a descriptive statistics table, the entry is increased to 3 entries: (1) the original pH entry; (2) pH computed from conversion to and from  $\mu\text{eq/l H}^+$ ; and (3)  $\mu\text{eq/l H}^+$ . The reason for these conversions is that pH is actually the negative logarithm of the hydrogen ion concentration. To be technically correct in computing descriptive statistics, pH values must be converted to  $\mu\text{eq/l H}^+$  (Kunkle and Wilson 1984). Once the descriptive statistics are computed using the pH values expressed as  $\mu\text{eq/l H}^+$ , the results can be converted back to pH. The three pH entries in the descriptive statistics table will all have the same STORET code.

Whenever a bacteriological parameter appears in a descriptive statistics table, the entry is increased to 3 entries: (1) the original bacteriological entry; (2) an entry computed using the log of each measured value; and (3) an entry that simply reports the geometric mean. The reason for converting to logs and displaying the geometric mean is convention. Bacteriological water quality standards typically reference the geometric mean rather than the arithmetic. The three bacteriological entries in the descriptive statistics tables will all have the same STORET code.

### *EPA Water Quality Criteria Analysis for Station*

The EPA Water Quality Criteria Analysis table follows the Parameter Inventory. This table presents a comparison between the station's STORET water quality data and applicable national water quality criteria for freshwater and marine aquatic organisms; drinking water; and other concerns. Comparison against applicable State water quality criteria was not feasible given project resources. Appendix F provides the relevant national EPA water quality criteria values. In most cases, the EPA water quality criteria values are single sample concentrations that can be directly compared to single sample STORET entries. There are, however, two notable exceptions to this single sample/single value comparison: ammonia and fecal-indicator bacteria. For these two parameters, criteria are either derived from or depend on the results of other chemical characteristics of the water or require a time series statistical treatment of multiple samples to determine whether the criterion has been exceeded. The EPA ammonia criterion is pH and temperature dependent. To calculate the criterion for each ammonia sample value was beyond

the scope of this project. Consequently, ammonia criteria were not included in Appendix F or the EPA Water Quality Criteria Analyses. Un-ionized ammonia criteria can be determined from formula table values included in the EPA Silver Book (Environmental Protection Agency 1995).

For the purposes of this project, fecal-indicator bacteria data were flagged as exceeding criteria when their concentrations exceeded 200, 1000, 126, and 33 (fresh)/35 (salt) colony forming units or most probable number for single samples of fecal coliform, total coliform, *E. coli*, and enterococci, respectively. These values represent only approximations of the criteria for primary contact recreation waters where criteria are typically expressed in terms of a geometric mean computed with no less than 5 samples during a given month. When a fecal-indicator bacterial observation exceeds a criterion in the EPA Water Quality Criteria Analysis section, the reader should refer to the corresponding geometric mean calculations in the preceding Parameter Inventory. Long-term geometric means that exceed the respective water quality criteria for multiple samples are more indicative of chronic bacteriological problems than single sample values.

Water quality observations carrying non-detection or below-detection limit remark codes (K, T, and U) required special treatment in the EPA Water Quality Criteria Analysis. As with the statistics in the Parameter Inventory, half the detection limit was the value used in the EPA Water Quality Criteria Analysis. For certain observations, however, half the detection limit may exceed a water quality criterion. For those observations it would be inappropriate to classify them as exceeding a criterion since the actual value wasn't known. Thus, it was decided that any below detection limit or non-detect observations that exceed a water quality criterion using half the detection value would be excluded from the EPA Water Quality Criteria Analysis. If non-detect or below detection limit values are excluded from the EPA Water Quality Criteria Analysis for a particular parameter, the total observations for that parameter will be footnoted with an ampersand (&). This will also explain the difference between the total observations in the Parameter Inventory and the EPA Water Quality Criteria Analysis. Non-detect or below detection limit values are included in the EPA Water Quality Criteria Analysis, however, if half the detection limit doesn't exceed the parameter's criterion.

The EPA Water Quality Criteria Analysis for each station lists the parameter; the standard type and value; the total number of observations for the parameter at this station; the number of observations that exceeded the standard value; and the proportion of observations that exceeded the standard value. Water quality observations are considered as having exceeded a criterion regardless of whether the criterion represents a maximum acceptable value or a minimum acceptable value. The table also breaks down the water quality criteria analysis on a seasonal basis to allow the reader to discern whether parameter observations tend to exceed criteria during only certain seasons or year round. Although the EPA Water Quality Criteria Analysis table is a good starting point for assessing potential water quality problems at the station, the reader is strongly encouraged to read the caveat section in the Introduction concerning drawing conclusions about water quality problems from this table. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

#### *Time Series Plots for Station*

Following the EPA Water Quality Criteria analysis will be any Time Series Plots for each parameter that met the time series plot screening criterion selected for the park unit. If a time series plot is generated for a particular parameter at a station, a "p" will appear next to the STORET parameter code in the Parameter Inventory. If no time series plots are present for the particular station, the data did not meet the time series screening criterion listed in the Overview section of the Water Quality Results chapter. The x-axis on these plots is the period of record, listing only the 2-digit calendar year for clarity (i.e. 1983 is presented as 83). The y-axis is the concentration of the selected parameter in its measurement units. In general, the units for a given parameter are given either on the y-axis or in the parameter description in the subtitle of the graph. Subtitle and/or y-axis parameter descriptions may be truncated on the plots so as to not exceed the maximum number of plotting characters. Y-axis values less than zero are sometimes shown for better representation of the entire plot. The station identification code, parameter description, and parameter STORET code are presented in the main title. The footnote provides a descriptive location name. Observations on the plot are represented as squares. Lines are drawn connecting each successive observation. As mentioned previously in the Statistical Definitions section of the Methodology chapter, the interconnecting line is drawn only for ease of reading and provides no indication of what the actual parameter

values were between the two observed measurements. Digital, reproducible copies of all time series plots accompany the report on disk (See Appendices A and B).

For time series plots of pH, the original pH values are plotted. For time series plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of a time series plot for bacteriological parameters is log-linear.

#### *Annual Analysis for Station*

If more than 9 observations exist in each of at least 4 years for a particular parameter at a station, an Annual Analysis table will be generated. Entries will be made in the table for each parameter having more than 9 observations in each of at least 4 years. The Annual Analysis presents the same descriptive statistics as the Parameter Inventory table, except that it provides the statistics by year, rather than the entire period of record. Although some of the years may not contain 9 observations, these years still have an entry in the table. A parameter needs only to have 9 observations in any 4 years of its period of record to qualify for the Annual Analysis table. Like the Parameter Inventory, percentiles with fewer than 9 observations are not computed and entries computed with greater than 50 percent of the data values set to half the detection limit are flagged. Entries in the Annual Analysis table that also meet the annual analysis box-and-whisker plot screening criterion will be flagged with a "p" next to the STORET code. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

#### *Annual Box-and-Whiskers Plots for Station*

Entries in the Annual Analysis table that meet the annual box-and-whisker plot screening criterion will generate Annual Box-and-Whiskers Plots. The interpretation of box-and-whiskers plots is explained in the Statistical Definitions section of the Methodology chapter. A box is generated for each year of the period of record, even if less than 9 observations were recorded in the year. The axis labeling and plot titling is the same as for the time series plots. Digital, reproducible copies of these graphics accompany the report on disk (See Appendices A and B).

For annual box-and-whiskers plots of pH,  $\mu\text{eq/l H}^+$  are plotted. For annual box-and-whiskers plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of an annual box-and-whiskers plot for bacteriological parameters is log-linear.

#### *Seasonal Analysis for Station*

As explained above, a park's hydrologic seasons for seasonal water quality analysis were determined using a process of hydrograph separation and other techniques. If a parameter has more than 9 observations in each of 2 seasons with a period of record of at least 6 years and observations in at least 3 of the 6 years, a Seasonal Analysis table will be generated for the station. The Seasonal Analysis presents the same descriptive statistics as the Parameter Inventory table, except that it provides the statistics by season, rather than the entire period of record. Although certain parameters for a season at a station may not contain 9 observations, these parameters can still have an entry in the table. A parameter needs only to have 9 observations in each of 2 seasons with a period of record of at least 6 years and observations in at least 3 of the 6 years to qualify for the Seasonal Analysis table. Consequently, some of the parameters could have fewer than 9 observations in a particular season but still generate a table entry. Like the Parameter Inventory and Annual Analysis, percentiles with fewer than 9 observations are not computed and entries computed with greater than 50 percent of the data values set to half the detection limit are flagged. Entries in the Seasonal Analysis table that also meet the seasonal analysis box-and-whisker plot screening criterion will be flagged with a "p" next to the STORET code. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

### *Seasonal Box-and-Whiskers Plots for Station*

Entries in the Seasonal Analysis table that meet the seasonal box-and-whisker plot screening criterion will generate Seasonal Box-and-Whiskers Plots. The interpretation of box-and-whiskers plots is explained in the Statistical Definitions section of the Methodology chapter. A box is generated for each season of the period of record, even if less than 9 observations were recorded in the season. On the x-axis, the seasons are labeled 1 through the number of seasons defined for the park through hydrograph separation. The actual calendar dates that correspond to these numerically labeled seasons exist in the Overview section and the Seasonal Analysis tables in the Water Quality Results chapter. The axis labeling and plot titling are the same as for the time series and annual box-and-whiskers plots. Digital, reproducible copies of these graphics accompany the report on disk (See Appendices A and B).

For seasonal box-and-whiskers plots of pH,  $\mu\text{eq/l H}^+$  are plotted. For seasonal box-and-whiskers plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of a seasonal box-and-whiskers plot for bacteriological parameters is log-linear.

### **EPA Water Quality Criteria Analysis for Entire Park Study Area**

This table essentially summarizes all the individual station-by-station EPA water quality criteria analyses in the study area. (Refer to the EPA Water Quality Criteria Analysis for Station section above for more detailed information on the treatment of special cases in the EPA Water Quality Criteria Analysis for Entire Park Study Area.) This table presents a comparison between the study area's STORET water quality data and applicable national water quality criteria for freshwater and marine aquatic organisms; drinking water; and other concerns. Comparison against applicable State water quality criteria was not feasible given project resources. Appendix F provides the relevant national EPA water quality criteria values. The EPA Water Quality Criteria Analysis for the Entire Park Study Area lists the parameter; the standard type and value; the total number of observations for the parameter at this station; the number of observations that exceeded the standard value; and the proportion of observations that exceeded the standard value. Water quality observations are considered as having exceeded a criterion regardless of whether the criterion represents a maximum acceptable value or a minimum acceptable value. The table also breaks down the water quality criteria analysis on a seasonal basis to allow the reader to discern whether parameter observations tend to exceed criteria during only certain seasons or year round. Although the EPA Water Quality Criteria Analysis for the Entire Park Study Area is a good starting point for assessing potential water quality problems at the park, the reader is strongly encouraged to read the caveat section in the Introduction before drawing conclusions about water quality problems from this table. A digital, reproducible copy of this table accompanies the report on disk (See Appendices A and B).

### **NPS Servicewide Inventory and Monitoring Program Level I Water Quality Inventory Data Evaluation and Analysis (IDEA)**

One of the objectives of this Baseline Water Quality Data Inventory and Analysis project is to perform an IDEA - an Inventory Data Evaluation and Analysis - to determine the presence and/or absence of Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups in the park's study area. The Strategic Plan for Conducting Baseline Natural Resource Inventories in the National Park Service (National Park Service 1993) identified the basic water quality parameters displayed in Table I as the parameters that all parks must have for "key" waterbodies (determined on the basis of size, uniqueness, threats, etc.) within park boundaries. Since these parameters can be measured in different ways and with different units, there are multiple STORET codes associated with each parameter; hence the concept of parameter groups. The Strategic Plan distinguishes between those parameter groups required for all parks and parameter groups required only on a case-by-case basis.

The IDEA basically compares the parameters listed in the Parameter Period of Record Tabulation and Station/Parameter Period of Record Tabulation with the "Level I" Servicewide Inventory and Monitoring water quality parameter groups, listed in Table I and in Appendix G, and notes, not only the presence or absence of each parameter group, but the total number of observations for each parameter present in the group; the number of

observations between certain time periods; and the total number of stations within the study area at which the parameter was measured. The total number of different (unique) stations measuring parameters for the group is in parentheses on each parameter group's summary line.

The first page of the IDEA lists the missing Servicewide Inventory and Monitoring Program "Level I" groups. If a parameter group appears on this list, no data for any of the parameters defining the group (See Appendix G) was retrieved for it within the study area. So-called non-priority parameter groups may appear in the missing list. Non-priority parameters are park-specific parameters (case-by-case) which may not be applicable to your park. Consequently, if you believe a particular parameter, not included in IDEA (See Appendix G), to be important for your park, you will have to consult the Parameter and Station/Parameter Period of Record Tabulations to determine the presence or absence of this parameter for the park. Although considered a "Level I" parameter, biological data, obtained through rapid bioassessment or other means, is not considered in this report which deals specifically with surface water chemistry. Following the Missing Level I Group list is the Present Level I Group list which displays the summary results for each Servicewide Inventory and Monitoring "Level I" water quality parameter group that was found.

Table I. Basic "Level I" Water Quality Parameters Identified as Required and Optional By the Servicewide Inventory and Monitoring Program for "Key" Park Waterbodies

<p><u>Required Parameter Groups:</u></p> <p>(1) Alkalinity (2) pH (3) Conductivity (4) Dissolved Oxygen (5) Rapid Bioassessment Baseline (EPA/State protocols, involving fish and macroinvertebrates) (6) Temperature (7) Flow</p>
<p><u>Case-By-Case Parameters Groups:</u></p> <p>(8) Toxic Elements (9) Clarity/Turbidity (10) Nitrate/Nitrogen (11) Phosphate/Phosphorus (12) Chlorophyll (13) Sulfates (14) Bacteria</p>

The last page of the IDEA summarizes the information from the Missing and Present Level I Group lists. This page provides information on the temporal and spatial distributions of the data. Included in this table are the total number of observations for each parameter group; the number of observations since January 1, 1985; the percent of the total observations since January 1, 1985; the number of stations measuring each parameter group; the percent of the total number of stations with data measuring the parameter group; the number of observations per station with data; the period-of-record for this parameter group; and the average number of observations per year of the period-of-record.

In interpreting the results of the IDEA, the reader should first consult the Missing Level I Group list. For the parameter groups listed, there was no baseline water quality data within the study area entered in STORET. Consequently, these parameter groups could be a higher priority for data collection. It is important, however, to realize that data within these parameter groups may have been already collected but not entered into STORET. The resources for this project did not enable us to pursue thorough literature and file cabinet reviews to dredge up

every last iota of data. If data exists for certain Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups in a park's file cabinet, it is the park's responsibility to factor that data into their IDEA. Consequently, the listing of a parameter group on the Missing "Level I" Group list is not a WRD endorsement to launch a study to collect these data. The IDEA is intended to simply note that no data exist for these parameter groups in STORET for the park. It is the park's responsibility to ascertain whether such data has already been collected by the park or other entities before embarking on a new study. In fact, in the future the WRD will require that any park study plan proposing to collect baseline water quality data show that they have consulted their Baseline Water Quality Data Inventory and Analysis report and searched in other locations (file cabinets, published literature, etc.) for the data they propose to collect. A similar interpretation springs from the Present "Level I" Group list. Insufficient data density in certain time periods for particular parameter groups is not necessarily cause for launching a new inventory and/or monitoring program. The park should still consult with other potential sources of data. Again, the IDEA is designed to provide only a quick check on data in STORET for the Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups.

### **Water Quality Observations Outside STORET Edit Criteria for Park**

STORET data entered after November 1983 were subjected to rudimentary edit/bounds checking for 190 common parameters (See the STORET Edit Criteria in Appendix C). None of the data entered into STORET prior to that time has been subjected to edit/bounds checking. Moreover, to maintain exact comparability with USGS WATSTORE data, WATSTORE data entered into STORET has never been subjected to the EPA edit/bounds checking. During the pilot test phase of this project, obviously incorrect data was identified from both USGS and other agency data in STORET. As a consequence, all data downloaded from STORET was filtered through the STORET edit criteria to identify parameter observation values that fall outside any edit criterion ranges. This section documents the station name, parameter, date, time, parameter value, agency, and STORET station name of every observation that fell outside the range of an edit criterion. Not all data falling outside an edit criterion are necessarily incorrect. Such data may represent unique or special conditions. Consequently, every observation falling outside a STORET edit criterion was scrutinized to determine, in our best professional judgement, whether the value was in the realm of possibility or obviously incorrect. Water quality observations that appeared to be obviously incorrect are marked with an "X" in the Disposition column of this table. These values were not retrieved or included in any of the inventory tables or graphs. Water quality values outside a STORET edit criterion but within the realm of possibility were retained and included in inventory tables and graphs. The Water Quality Observations Outside STORET Edit Criteria for Park table documents all values that were outside an edit criterion range. This documentation is also necessitated by the fact that agencies can override the STORET edit criteria for individual observations. Although the edit criteria eliminate some potentially "bad" data from the report, the probability of other incorrect data, for both the 190 parameters that are edit/bound checked and all the other STORET parameters that aren't error checked, is high. Readers should consult the Caveat section in the Introduction for guidelines on the use and interpretation of STORET data. The responsibility for correcting these observations rests with the collecting agency.

## **WATER QUALITY RESULTS**



## OVERVIEW FOR RICH

### Study Area Boundary Description

The study area includes the park and all areas within at least 3 miles upstream of the park unit boundary and at least 1 mile downstream.

	<u>Study Area</u>	<u>Park</u>
GIS Estimated Acreage:	222655	815
# STORET Stations:	149	17
# Stations With No Data:	13	0
# Stations With No Stat. Analysis:	0	0
# Longer Term Stations:	49	1
Date of STORET Retrieval:	08/04/99	08/04/99
Period of Record:	07/30/45-12/15/98	11/30/76-09/02/97
# Parameters Measured:	695	452
# Water Quality Observations:	144291	2603
# Industrial/Municipal Facilities:	32	0
# Drinking Water Intakes:	4	0
# Water Gages:	14	0
# Water Impoundments:	23	0
# Total Plots:	224	0
# Time Series:	51	0
# Annual:	53	0
# Seasonal:	120	0

### Hydrologic Definition of Seasons:

1. July 1 - October 14
2. October 15 - March 15
3. March 16 - June 30

### Time Series Plot Criteria:

To be included in the time series plots, a station/parameter combination must have at least 25 years and at least 160 observations.

### Annual Analysis Criteria:

To be included in the annual box-and-whisker plots, a station/parameter combination must have at least 9 observations in each of at least 15 years.

To be included in the annual analysis tables, a station/parameter combination must have at least 9 observations in each of at least 4 years.

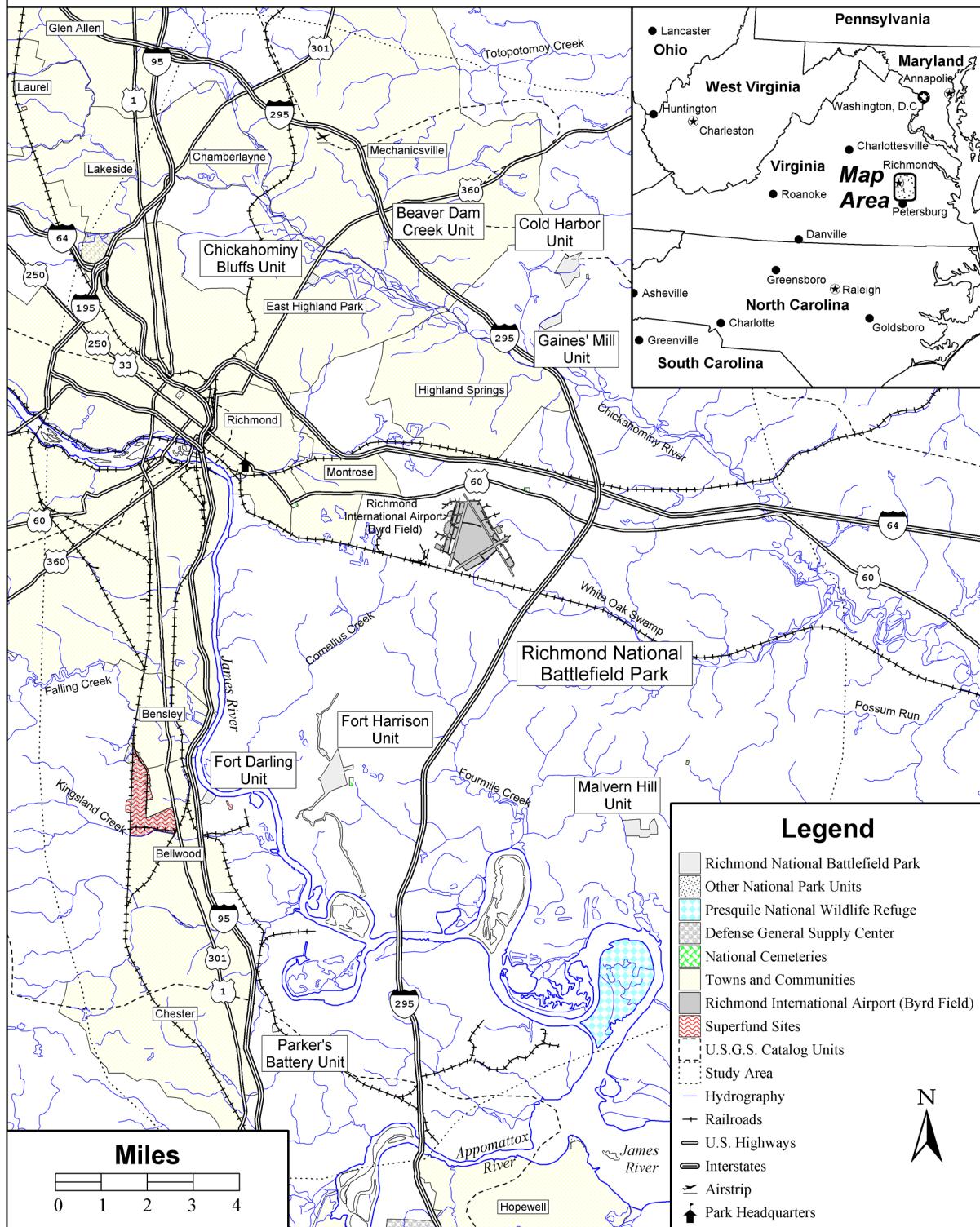
### Seasonal Analysis Criteria:

To be included in the seasonal box-and-whisker plots, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 25 years and observations in at least 4 of the 25 years.

To be included in the seasonal analysis tables, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years.

# **Richmond National Battlefield Park**

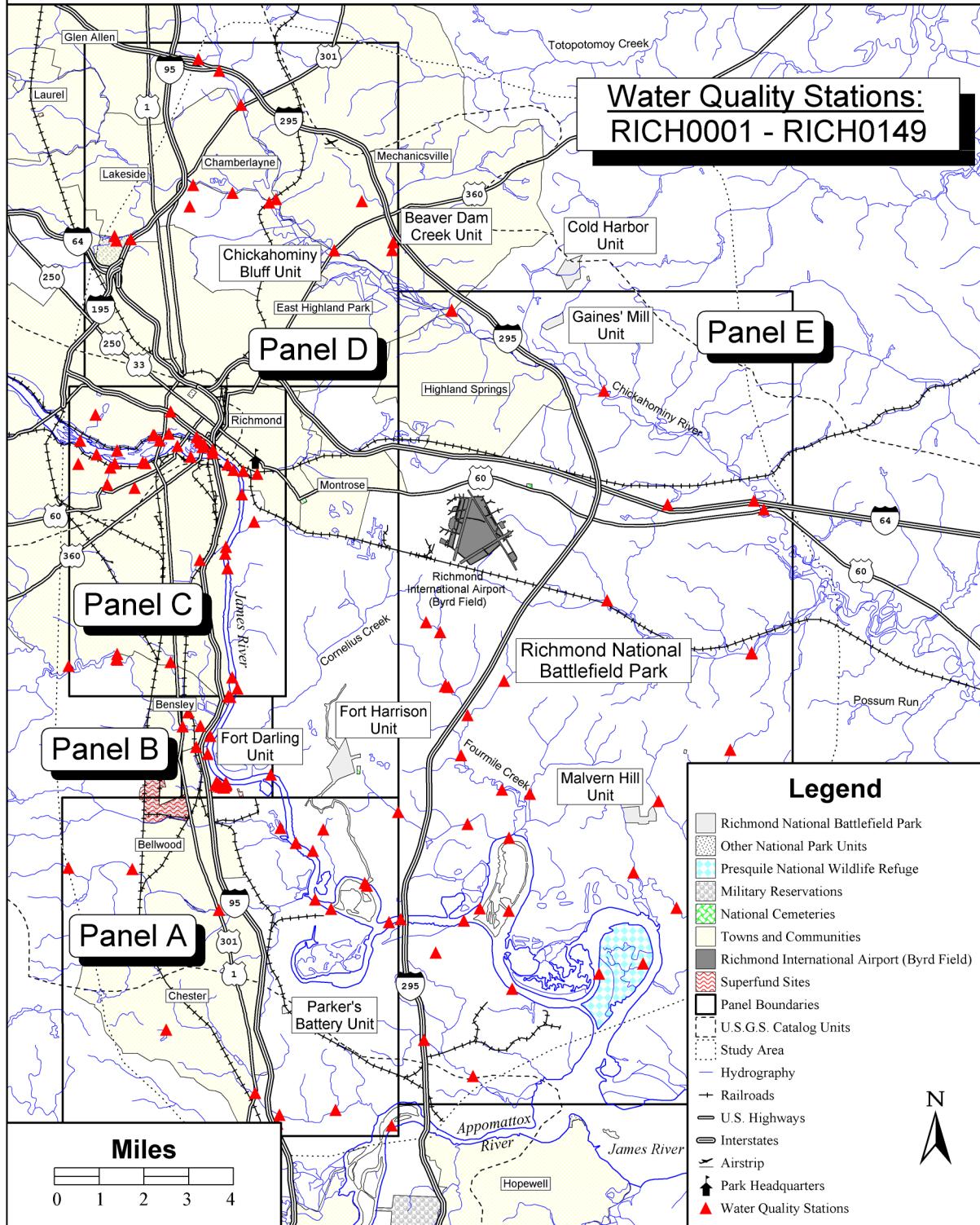
# Regional Location Map



# Richmond National Battlefield Park

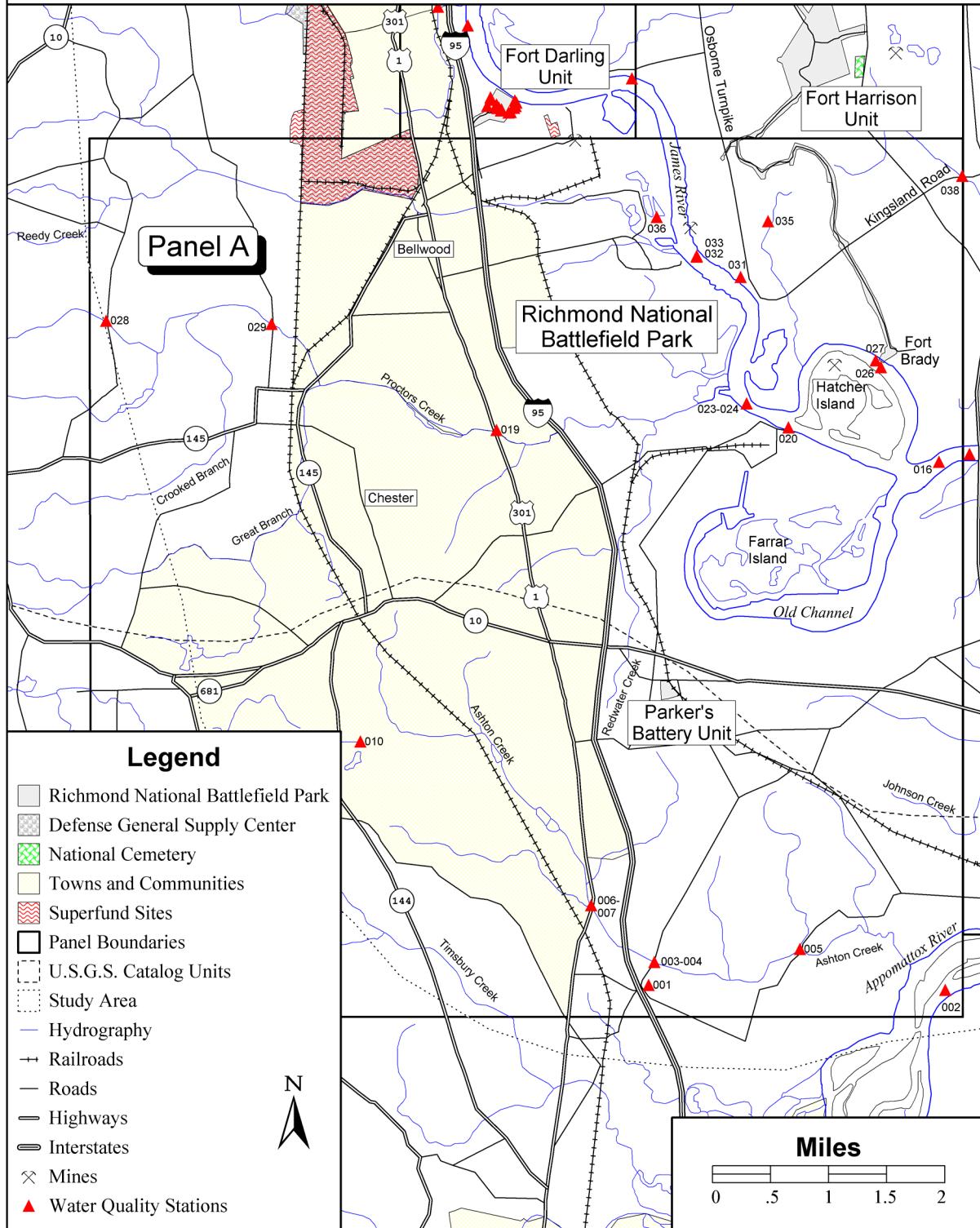
## Water Quality Monitoring Locations

### Graphic Panel Index



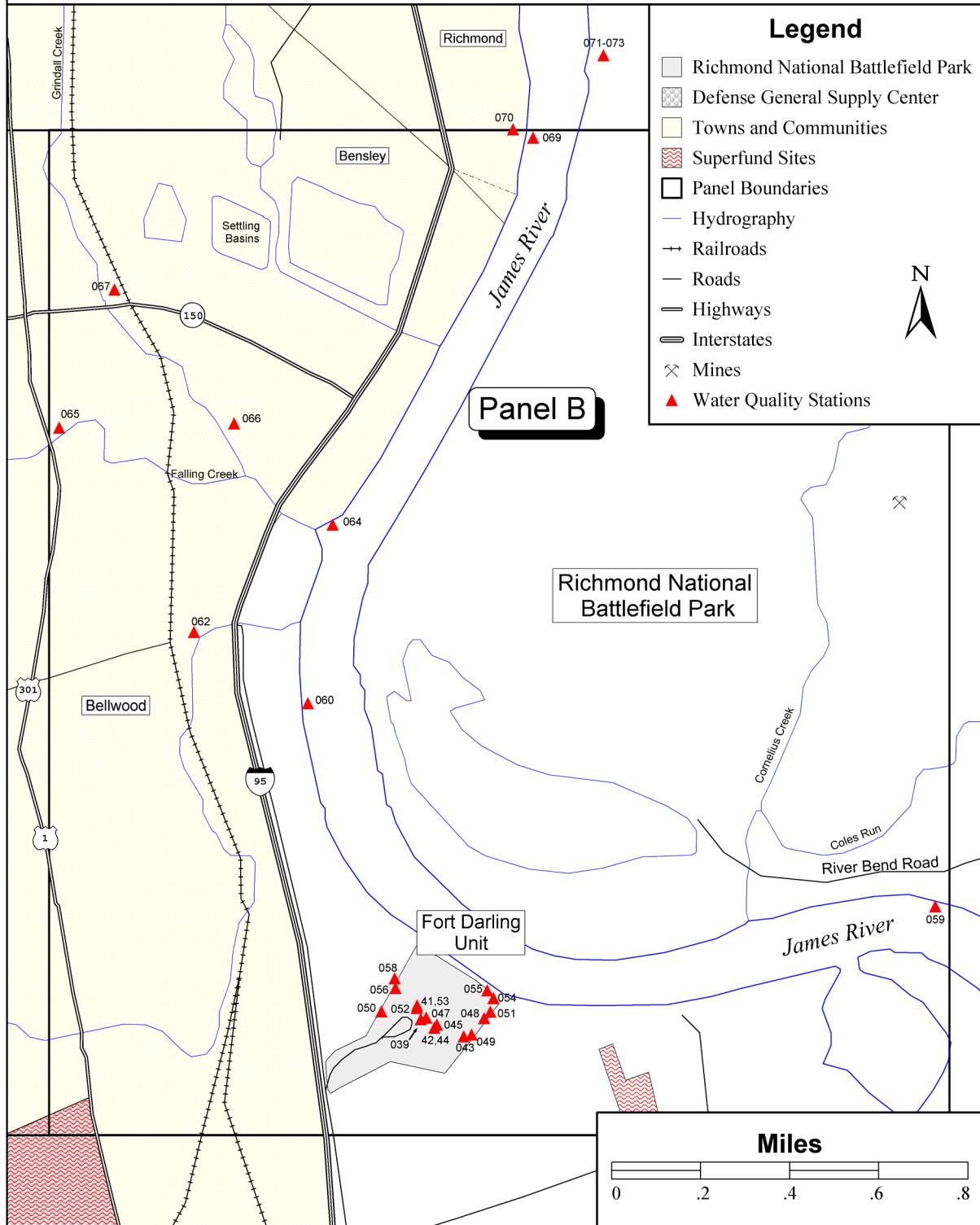
# Richmond National Battlefield Park

## Water Quality Monitoring Locations



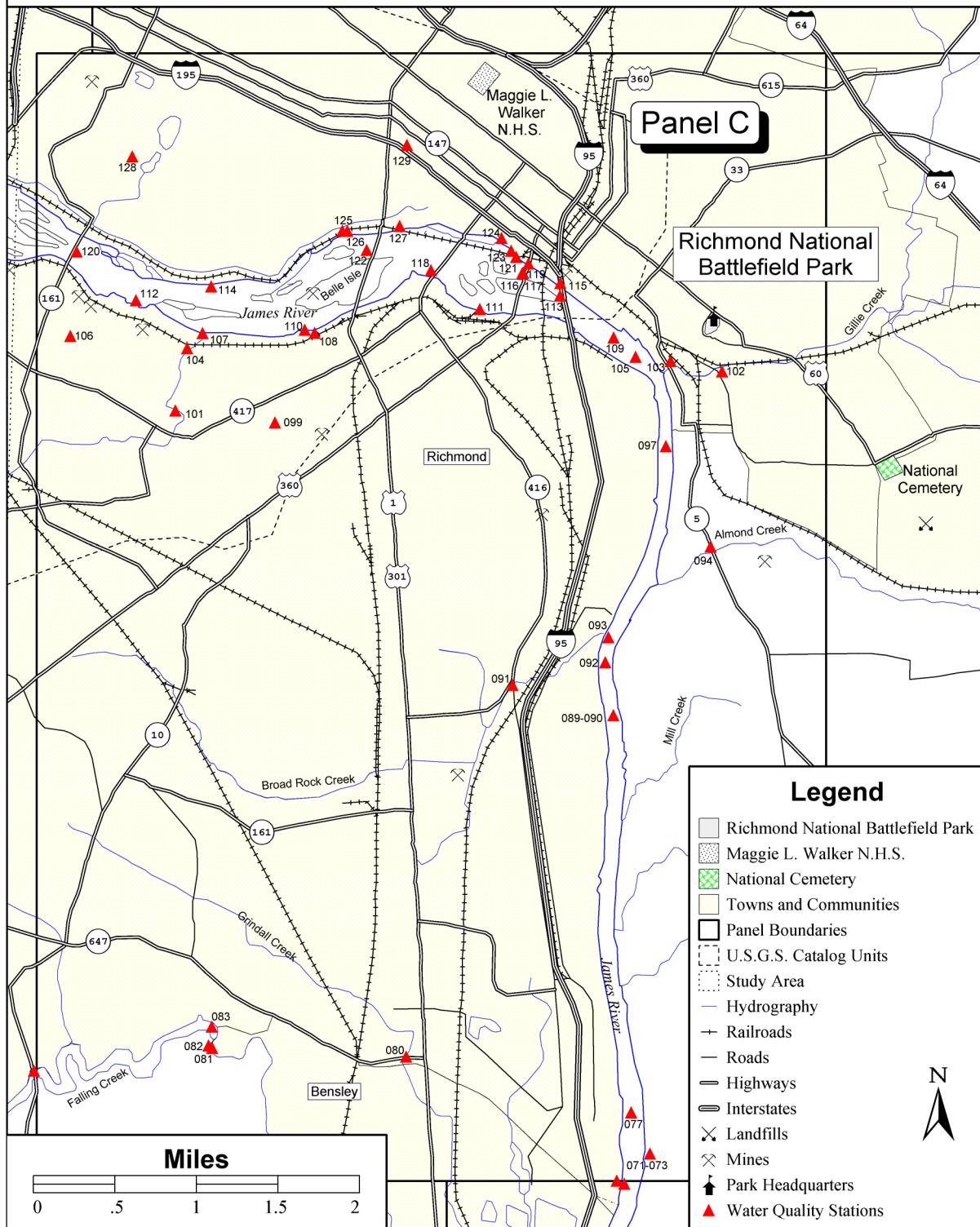
# Richmond National Battlefield Park

## Water Quality Monitoring Locations



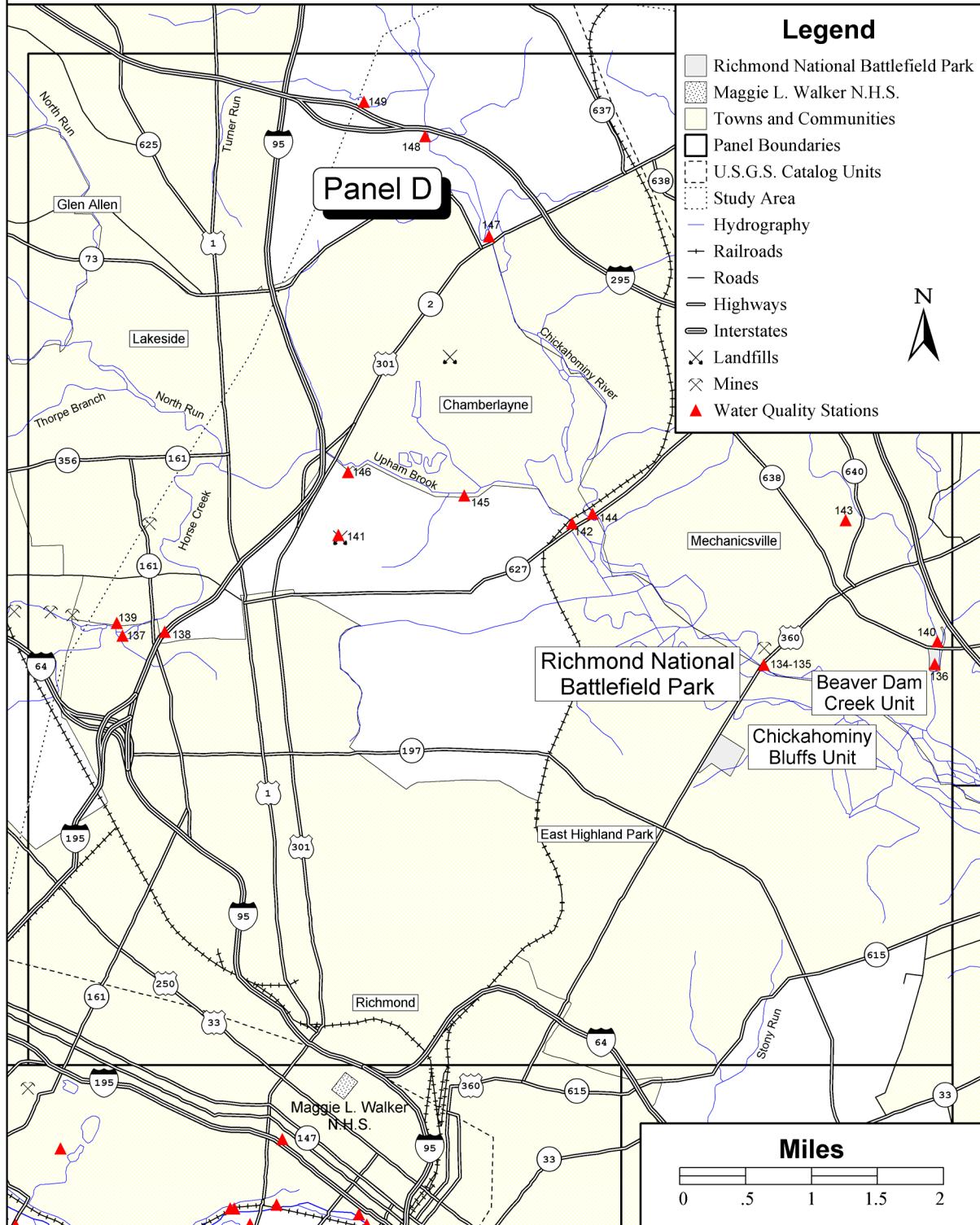
# **Richmond National Battlefield Park**

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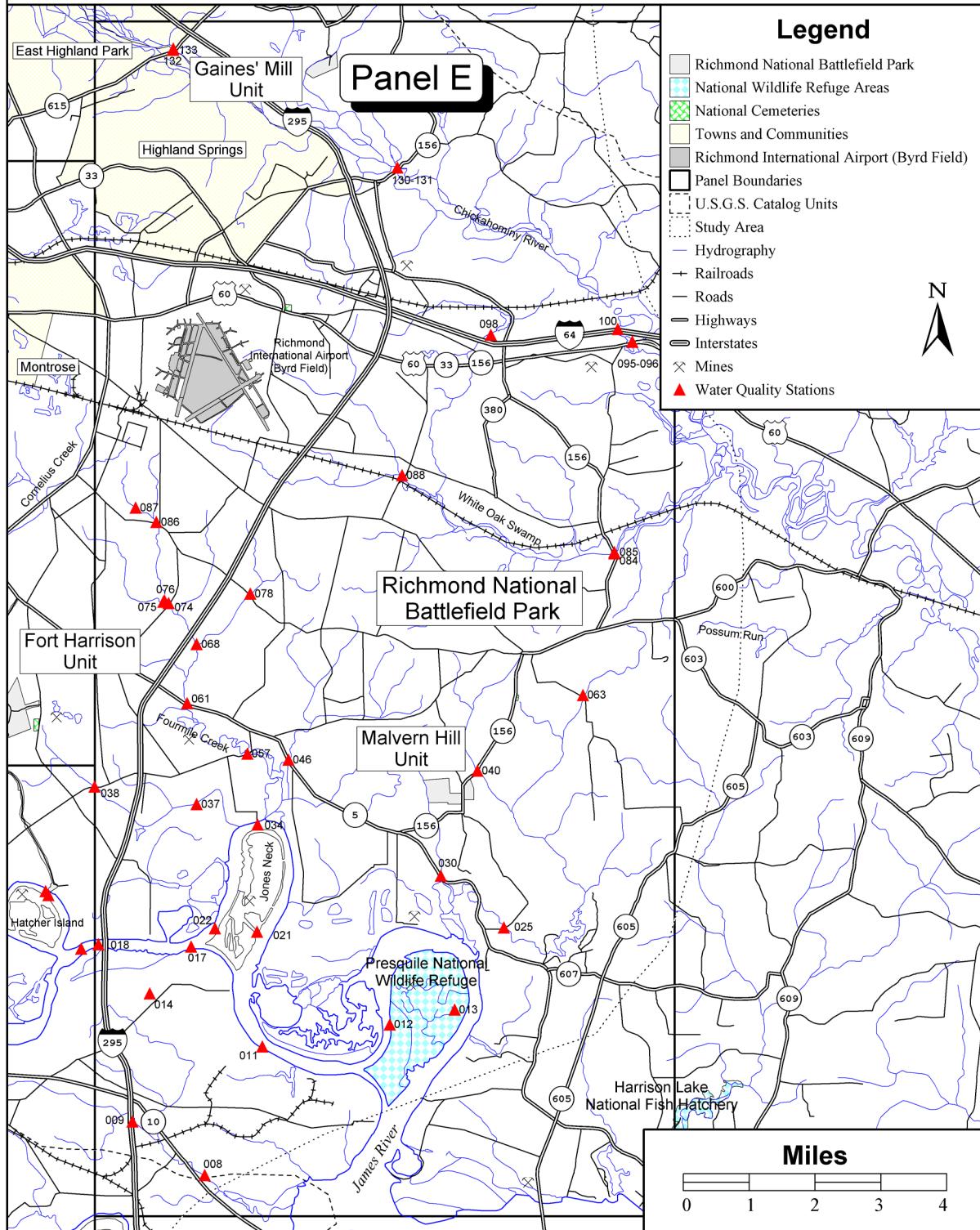
# Richmond National Battlefield Park

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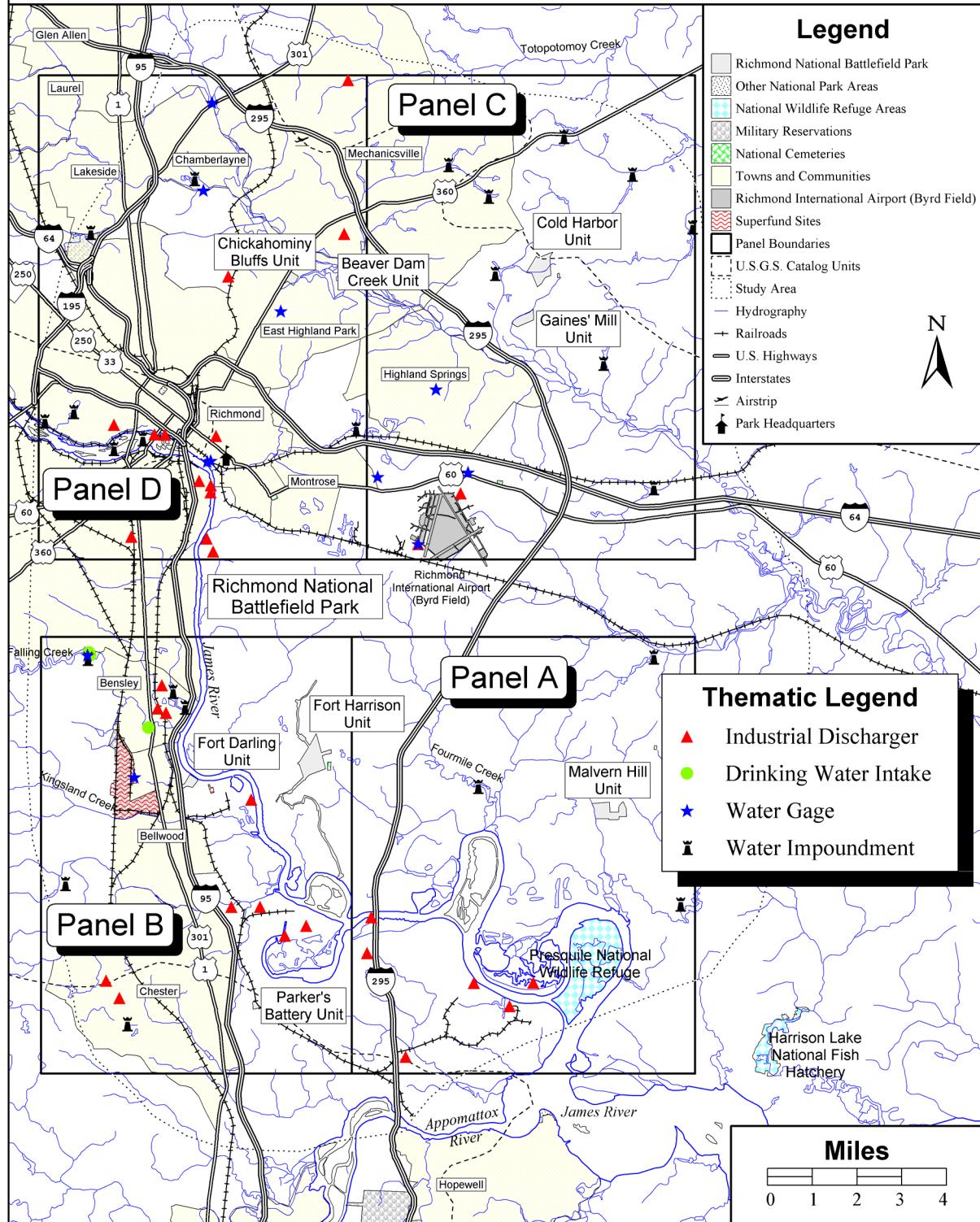
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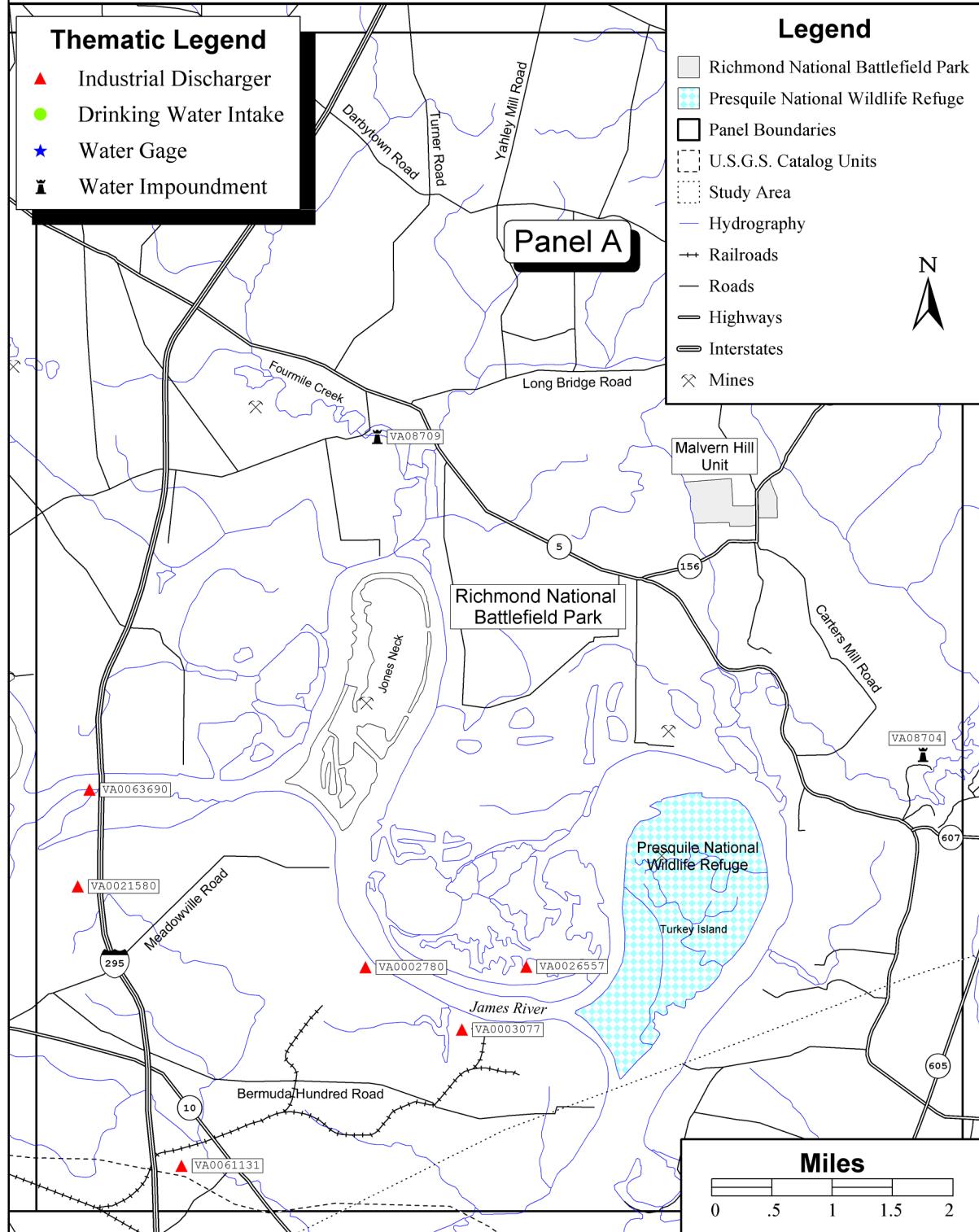
# Richmond National Battlefield Park

## Dischargers, Drinking Intakes, Water Gages, & Impoundments Graphic Panel Index



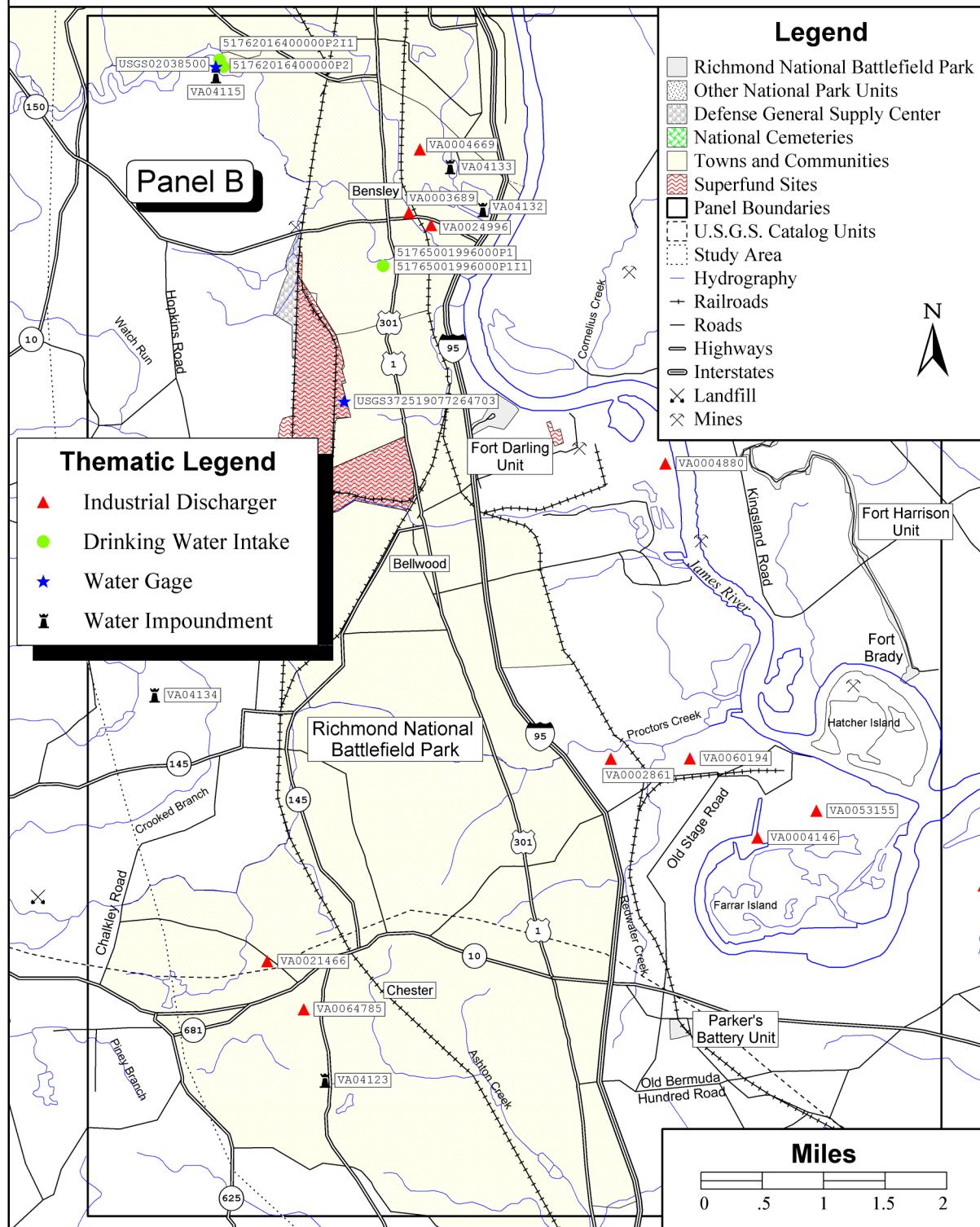
# Richmond National Battlefield Park

## Dischargers, Drinking Intakes, Water Gages, & Impoundments



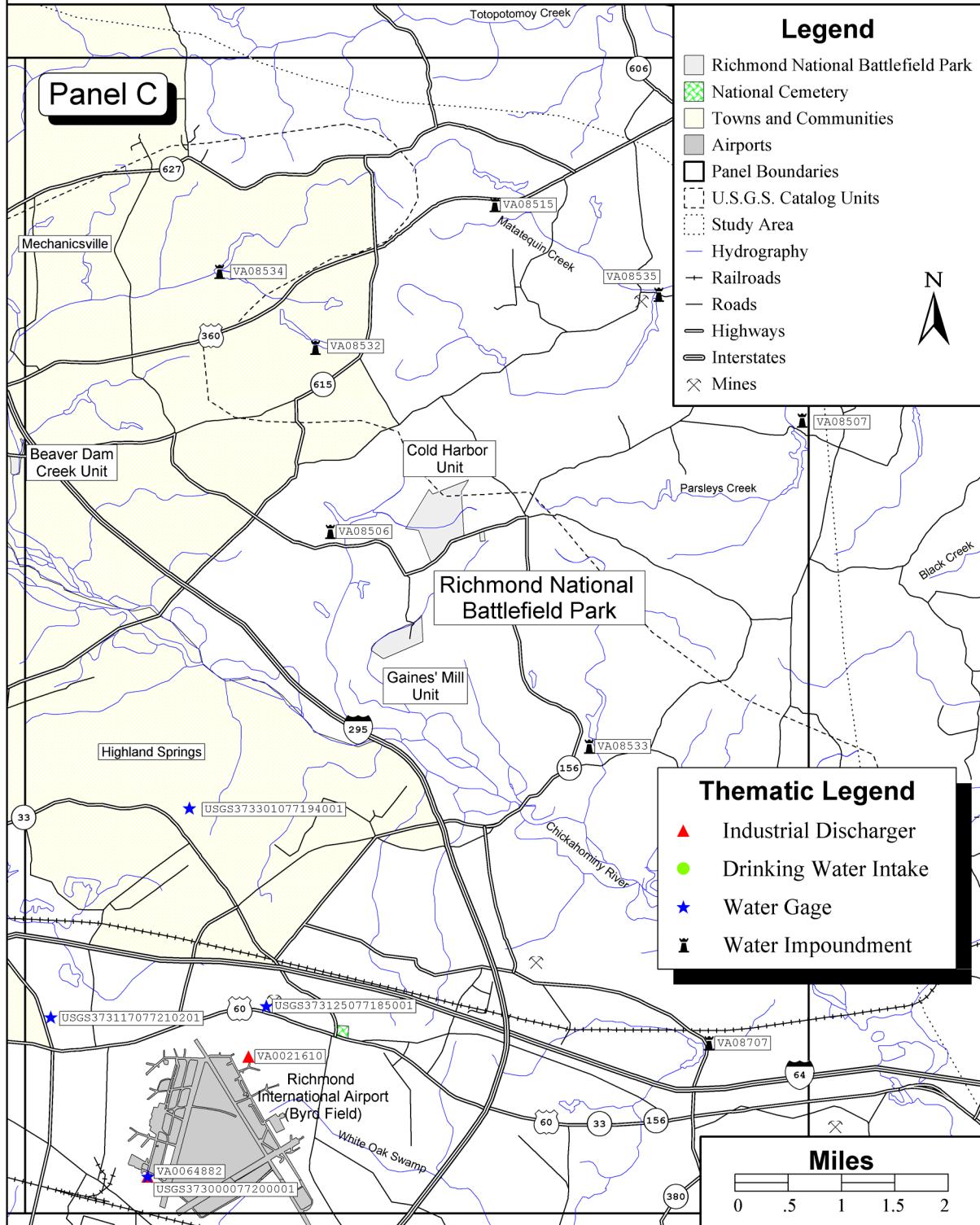
# Richmond National Battlefield Park

## Dischargers, Drinking Intakes, Water Gages, & Impoundments



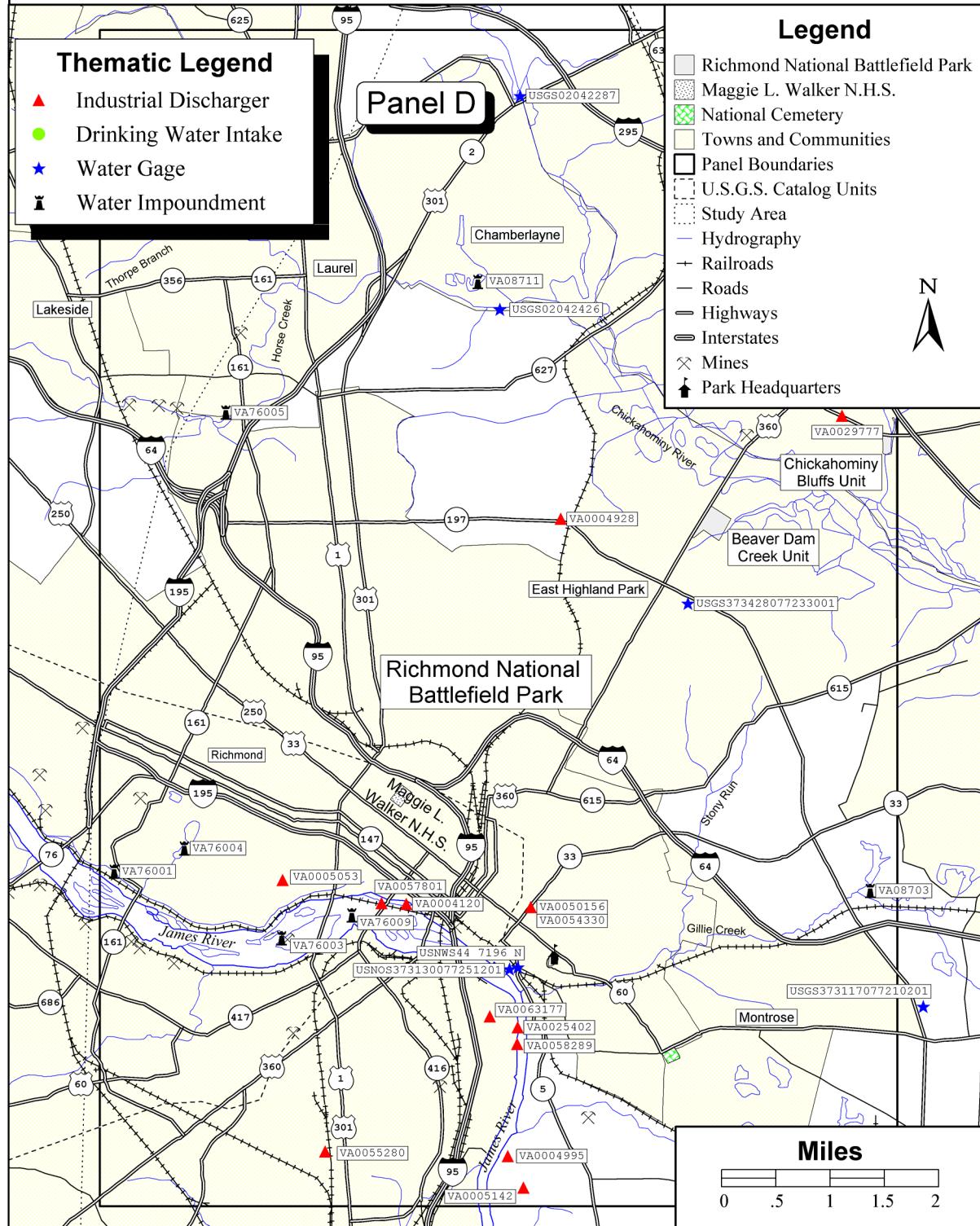
# Richmond National Battlefield Park

## Dischargers, Drinking Intakes, Water Gages, & Impoundments



# Richmond National Battlefield Park

## Dischargers, Drinking Intakes, Water Gages, & Impoundments



**Industrial Facility Discharges, Drinking Water Intakes,  
Water Gages, and Water Impoundments Within the RICH Study Area**

**Industrial Facility Discharges**

<u>Site ID</u>	<u>Station/Facility Name</u>	<u>Address</u>	<u>City</u>	<u>Facility Receiving Water Name</u>
VA0002780	THE AMERICAN TOBACCO CO. HANME	DIVISION/PO BOX 899	HOPEWELL	JAMES RIVER
VA0002861	REYNOLDS METALS RICHMOND	1711 REYMET RD	RICHMOND	PROCTOR'S CREEK
VA0003077	ICI AMERICA INC	P O BOX 620	HOPEWELL	JAMES RIVER
VA0003689	NATIONAL CYLINDER GAS RICHMOND	5901 JEFFERSON DAVIS HWY	RICHMOND	GRANDALL CK
VA0004120	VEPCO 12TH ST RICHMOND	BOX 26666	RICHMOND	JAMES RIVER
VA0004146	VEPCO CHESTERFIELD POWER STATI	P.O. BOX 26666	RICHMOND	JAMES RIVER
VA0004669	E.I. DUPONT DE NEMOURS & CO	1007 MARKET STREET	WILMINGTON	JAMES
VA0004880	VALLEY PLATING CO RICHMOND	P O BOX 3438	RICHMOND	JAMES RIVER
VA0004928	STANDARD PAPER MFG CO RICHMOND	920 E LABURNUM AVE	RICHMOND	CHICKAHOMINY R
VA0004995	JAMES RIVER PAPER CO RICHMOND	P O BOX 1554	RICHMOND	..
VA0005053	FEDERAL PAPER BOARD CO	TREDEGAR ST PO BOX 2218	RICHMOND	JAMES RIVER
VA0005142	CHESTERFIELD,COUNTY OF,CHESTER	PO BOX 1155	RICHMOND	JAMES
VA0021466	HENRICO COUNTY DEPT OF PUBLIC	.....	.....	TR TO ASHTON C
VA0021580	HEARICO, CO. OF, DPU, SAADSTOA	GAY AVE AND MULFORD RD	.....	TR TO GILLIES C
VA0021610	FALLING CK STP CHEST. CO. BD.	.....	.....	BROADWATER C
VA0024996	RICHMOND DIV. OF WWTR TRMT,DE	CHESTERFIELD COURTHOUSE	CHESTERFIELD	GRINDALL CREEK
VA0025402	PHILIP MORRIS, BERMUDA HUNDRED	900 EAST BROAD ST	RICHMOND	JAMES R
VA0026557	BEECHWOOD SERVICE CORPORATION	.....	.....	JAMES R
VA0029777	REYNOLDS METAL COMPANY SOUTH P	ST RT 637	MECHANICSVILLE	TR TO CHICKAHOMINY R
VA0050156	HON COMPANY	11TH & BYRD STREET	CHMOND	CITY OF RICHMOND
VA0053155	CENTRAL OIL ASPHALT CORP	11200 OLD STAGE RD	CHESTER	PROCTORS C
VA0054330	INTA ROTO, INC	7700 FORT DARLING RD	RICHMOND	TR TO JAMES R
VA0055280	TWIN OAKS SUBDIVISION	LEWIS RD	.....	TR TO CHICKAHOMINY R
VA0056758	MANCHESTER BOARD & PAPER CO	.....	MECHANICSVILLE	TOTOPOTOMOY C
VA0057801	RASCHIG CO	P O BOX 24410	RICHMOND	JAMES RIVER
VA0058289	COUNTY OF CHESTERFIELD	P O BOX 7656	RICHMOND	JAMES RIVER
VA0060194	CYRUS TAMADDON,PRIVATE RESIDEN	1200 COXENDALE RD	.....	JAMES R
VA0061131	RICHMOND CITY OF	MT BLANCO RD	.....	LW JAMES R
VA0063177	RICHMOND CITY OF	P O BOX 26505	RICHMOND	JAMES RIVER
VA0063690	HENRICO COUNTY WASTEWATER TMNT	.....	.....	JAMES R
VA0064785	SIMMONS BARBARA E	2704 FOREST LK RD	CHESTER	TR TO ASHTON C
VA0064882	LASSITER HERBERT H	.....	OAK HILL	MILL B

**Drinking Water Intakes**

<u>Site ID</u>	<u>Station/Facility Name</u>	<u>City</u>	<u>Population Served</u>	Avg. Daily Production <u>(Gal./Day)</u>
51762016400000P2	FALLING CK TRMT PLT	CHESTERFIELD	150000	0.00
51762016400000P2II	FALLING CREEK RESER	CHESTERFIELD	150000	0.00
51765001996000P1	TREATMENT PLANT	RICHMOND	3500	0000.00
51765001996000P1II	FALLING CREEK	RICHMOND	3500	0000.00

**Industrial Facility Discharges, Drinking Water Intakes,  
Water Gages, and Water Impoundments Within the RICH Study Area**

**Water Gages**

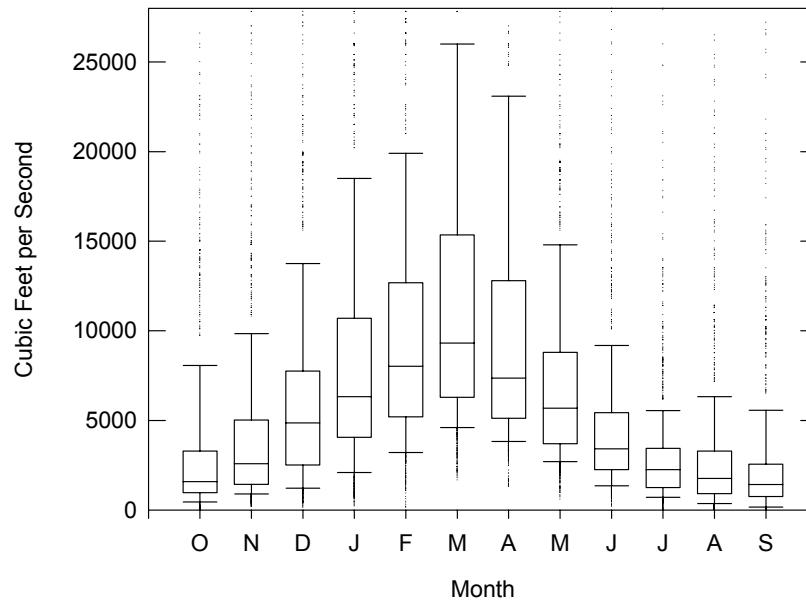
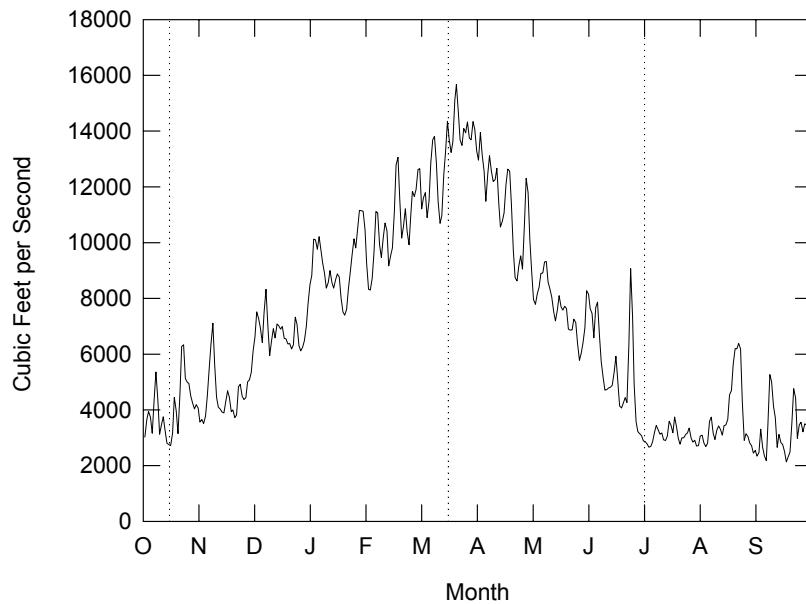
<u>Site ID</u>	<u>Station Name</u>	<u>Site Type</u>	Drainage Area (Square Miles)	<u>Begin Year</u>	<u>End Year</u>
USGS02038500	FALLING CREEK NEAR DREWRY'S BLUFF, VA		54.00	1943	1964
USNOS373130077251201	RICHMOND JAMES RIVER	Estuary			
USNWS44 7196 N	RICHMOND VA ON JAMES	Estuary	6792.00		
USGS02042287	CHICKAHOMINY RIVER NEAR ATLEE, VA	Stream	62.20	1990	1994
USGS02042426	UPHAM BROOK NEAR RICHMOND, VA	Stream	38.60	1990	1994
USGS372519077264701	51H 92	Well			
USGS372519077264702	51H 93	Well			
USGS372519077264703	51H 94	Well			
USGS372519077264704	51H 95	Well			
USGS373117077210201	52J 35	Well			
USGS373125077185001	52J 34	Well			
USGS373301077194001	52J 1	Well			
USGS373428077233001	51J 13	Well			
USGS373000077200001	RICHMOND, VA WBAP W13780	Climate			

**Water Impoundments**

<u>Site ID</u>	<u>Impoundment Name</u>	<u>Owner</u>	<u>Primary Purpose</u>	<u>Type of Dam</u>	<u>Downstream Hazard</u>	<u>Year Completed</u>
VA04115	FALLING CREEK FILTRATION PLANT	CHESTERFIELD COUNTY	Supply	Buttress	Significant	1952
VA04123	RIEVES DAM	FRANK RIEVES	Rec.	Earth	Low	1956
VA04132	POLISHING DAM	DUPONT	Other	Earth	Low	1962
VA04133	SPRAY DAM	DUPONT	Supply	Earth	Low	1929
VA04134	SALEM WOODS DAM	SALEM WOODS HOMEOWNERS A	Rec.	Earth	Low	1960
VA08506	GAINES MILL DAM	J.T.SICHL&O.T.HANSON	Other	Earth	High	1850
VA08507	PARSLEY'S MILL DAM	M.S.PARSLEY ET ALL	Rec.	Earth	Low	1930
VA08515	TALLEYS DAM	A.B.CARTER	Supply	Earth	Low	1900
VA08532	WESTHAVEN LAKE DAM	PRESTON W.WEST	Rec.	Earth	Low	1962
VA08533	BARKERS MILLPOND DAM	PAUL PARSLEY	Rec.	Earth	Significant	1900
VA08534	CHERRYDALE DAM	CHERRYDALE LOT OWNERS	Rec.	Earth	Low	1955
VA08535	BEATIES MILLPOND DAM	MRS.JOHN BEATIE	Rec.	Earth	Significant	1921
VA08703	GILLIES CREEK DAM	HIGHLAND SPRINGS CORP.	Rec.	Earth	Low	1956
VA08704	SHIRLEY MILL DAM	MR.NUNLEY JR.	Rec.	Gravity	Low	1932
VA08707	EBERHARD DAM	CHRIS TISIGARDIS	Rec.	Earth	Low	1900
VA08708	UKROP DAM	JOSEPH UKROP	Rec.	Earth	Low	1957
VA08709	GRIGGS DAM	FOREST LAKE FISHING CLUB	Rec.	Earth	Low	1900
VA08711	THREE CHOPT ESTATE DAM	THREE CHOPT ESTATE CORP.	Rec.	Earth	Low	1950
VA76001	BYRD PARK CANAL DAM	CITY OF RICHMOND	Hydro	Buttress	Low	1924
VA76003	HOLLYWOOD POWER PLANT	CITY OF RICHMOND	Hydro	Gravity	Low	1920
VA76004	UPPER SHEILDS LAKE DAM	CITY OF RICHMOND	Rec.	Earth	Low	1912
VA76005	YOUNGS POND DAM	CITY OF RICHMOND	Rec.	Buttress	Significant	1960
VA76009	VEPCO FLASH BOARD DAM	CITY OF RICHMOND	Hydro	Gravity	Low	1900

## REPRESENTATIVE MEAN ANNUAL HYDROGRAPH FOR SEASONAL ANALYSIS

RICHMOND NATIONAL BATTLEFIELD PARK  
James River near Richmond, VA  
02037500, 60 year record



Representative mean annual hydrograph (top) and distribution of daily flows by month (bottom) for hydrologic season determination. Box and whiskers represent a five number summary; bottom whisker cap is 10th percentile, bottom of box is 25th percentile, internal line is median, top of box is 75th percentile, and top whisker is 90th percentile. Hydrologic seasons for Richmond National Battlefield Park are: Oct. 15 to Mar. 15, Mar. 16 to Jun. 30, and Jul. 1 to Oct. 14.

## **CONTACTS FOR AGENCY CODES RETRIEVED FOR RICH**

<u>AGENCY</u>	<u>PRIMARY CONTACT NAME</u>	<u>ORGANIZATION</u>	<u>PHONE NUMBER(S)</u>
21VASWCB	POLLOCK, VERA	VA DEPT OF ENVIRONMENTAL	(804)698-4566
21MDEXP	BOSTATER, CHARLES	MARYLAND DEPT OF NAT RES	(301)269-3767
CHESBAY	BOSTATER, CHARLES	MARYLAND DEPT OF NAT RES	(301)269-3767
1113JAWQ	KANETSKY, CHARLES	USEPA REGION 3	(215)597-8176
112WRD	BRIGGS, JOHN	US GEOLOGICAL SURVEY	(703)648-5624
11NPSWRD	TUCKER, DEAN	NATIONAL PARK SERVICE	(970)225-3516
11FWS	HOELMAN, LOUIS	USEPA HQ	(202)260-7050
12NSS	LANDERS, DIXON H.	EPA ENVIRONMENTAL RES LAB	(541)754-4427

**QUANTITY OF DATA RETRIEVED FOR RICH BY AGENCY CODE**  
**WITHIN THE ENTIRE STUDY AREA (S.A.) AND JUST WITHIN THE PARK**

Agency	Organization	Period of Record		Water Quality		Longer Term <sup>1</sup>		No Data		Water Quality		Water Quality			
		Study Area	/	Stations		Stations		Stations		Observations		Parameters			
				S.A.	/	Park	S.A.	/	Park	S.A.	/	Park	S.A.		
21VASWCB	VA DEPT OF ENVIRONMENTAL	09/20/67-12/15/98		No Data in Park		96	0	38	0	5	0	129102	0	237	0
21MDEXP	MARYLAND DEPT OF NAT RES	No Data in S.A.		No Data in Park		1	0	0	0	1	0	0	0	0	0
CHESBAY	MARYLAND DEPT OF NAT RES	08/19/64-08/11/71		No Data in Park		10	0	0	0	8	0	1074	0	5	0
1113JAWQ	USEPA REGION 3	07/22/68-11/04/71		No Data in Park		4	0	1	0	0	0	665	0	18	0
112WRD	US GEOLOGICAL SURVEY	07/30/45-09/04/91		11/30/76-09/12/89		20	2	9	1	0	0	10418	326	119	67
11NPSWRD	NATIONAL PARK SERVICE	06/15/89-09/02/97		06/16/89-09/02/97		16	15	0	0	0	0	2282	2277	407	407
11FWS	USEPA HQ	10/01/70-10/01/86		No Data in Park		1	0	1	0	0	0	723	0	38	0
12NSS	EPA ENVIRONMENTAL RES LAB	04/03/86-04/03/86		No Data in Park		1	0	0	0	0	0	27	0	27	0
Totals		07/30/45-12/15/98		11/30/76-09/02/97		149	17	49	1	14	0	144291	2603	695	452

<sup>1</sup>Station With At Least 6 Parameters Having An Average of 1 Or More Observations Per Year During a Period of Record Extending At Least 2 Years.

**Station Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station Ident.	Location Description	In Park	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75
RICH0001	AER-O-FLOW TERTIARY TREATMENT PACKAGE AT SUNOCO	No	187	0	0	187
RICH0002 <sup>1</sup>	BUOY 9	No	520	0	218	302
RICH0003	RT. 620 BRIDGE NEAR WALTHALL	No	904	0	622	282
RICH0004	SHTON CK, NEAR RT 620 BRIDGE	No	34	0	34	0
RICH0005 <sup>1</sup>	RT. 746 BRIDGE, CONF. WITH APPOMATTOX RIVER	No	3489	1399	1807	283
RICH0006 <sup>1</sup>	AT RT. 1/301 BRIDGE	No	936	0	845	91
RICH0007	ASHTON CK, NEAR RT1/301 BRIDGE	No	22	0	22	0
RICH0008 <sup>1</sup>	RT. 724 BRIDGE	No	568	0	515	53
RICH0009	J-76 KINGSLAND CREEK / JAMES RIVER	No	0	0	0	0
RICH0010	RT. 616 BRIDGE S OF CHESTER	No	52	0	0	52
RICH0011 <sup>1</sup>	BUOY 137	No	3015	2002	890	123
RICH0012	JAMES RIVER AVOBE GRAVELLY RUN (HPA 1)	No	131	131	0	0
RICH0013	VIMS STATION J71 - JAMES RIVER	No	0	0	0	0
RICH0014	VIMS STATION B54 - JAMES RIVER	No	808	0	0	808
RICH0015 <sup>1</sup>	DUTCH GAP, BUOY 150	No	1111	393	25	693
RICH0016	JAMES RIVER, DUTCH GAP BUOY 150	No	160	0	0	160
RICH0017	JAMES RIVER, BUOY 147 (OLD BUOY 145)	No	393	393	0	0
RICH0018	BELOW HATCHER ISLAND R"150" J06	No	214	0	0	214
RICH0019 <sup>1</sup>	RT. 1 BRIDGE	No	4001	1350	1867	784
RICH0020	JAMES RIVER, OFF DUTCH GAP LANDING	No	394	394	0	0
RICH0021	JAMES RIVER, MOUTH OF JONES NECK QUARRY CHANNEL	No	393	393	0	0
RICH0022	VIMS STATION J70 - JAMES RIVER	No	0	0	0	0
RICH0023 <sup>1</sup>	DUTCH GAP, BUOY 155	No	5468	21	4727	720
RICH0024	JAMES RIVER AT BUOY 155	No	54	0	54	0
RICH0025	TURKEY ISLAND CREEK	No	13	13	0	0
RICH0026	JAMES RIVER, OFFF RICHMOND YATCH BASIN	No	393	393	0	0
RICH0027	JAMES RIVER NEAR DUTCH GAP, VA	No	3284	0	2749	535
RICH0028	SALEM RD, ABOVE CENTRALIA STP	No	124	0	0	124
RICH0029	CENTRALIA RD, BRIDGE BELOW STP	No	818	0	556	262
RICH0030	CREWES CHANNEL, RT. 5 BRIDGE	No	4	4	0	0
RICH0031	VIMS STATION J76 - JAMES RIVER	No	0	0	0	0
RICH0032	BUOY 157	No	14084	12297	1160	627
RICH0033	BUOY 157 JRWQMP STA.8	No	0	0	0	0
RICH0034	JAMES RIVER, OFF DEEP BOTTOM LANDING	No	392	392	0	0
RICH0035	AT MOUTH OF PETERSBURG BOAT HARBOR BELOW STP	No	170	0	0	170
RICH0036 <sup>1</sup>	100 YDS FROM MOUTH, ON LONE STAR CEMENT CO LAND	No	3013	1308	1663	42
RICH0037	ROUNDABOUT CREEK AT KINGSLAND RD	No	4	4	0	0
RICH0038	ROUNDABOUT CREEK, AT KINGSLAND RD	No	9	9	0	0
RICH0039	LEACHATE SEEP AT FORT DARLING LANDFILL	Yes	167	167	0	0
RICH0040	WESTERN RUN, RT. 156 BRIDGE	No	4	4	0	0
RICH0041	UNNAMED STREAM UPSTREAM OF LEACHATE SEEPS	Yes	167	167	0	0
RICH0042	UNNAMED STREAM DOWNSTREAM OF LARGEST SEEP	Yes	167	167	0	0
RICH0043	UNNAMED TRIBUTARY OF JAMES RIVER	Yes	183	183	0	0
RICH0044	LANDFILL ASSESSMENT FOR RICH STATION FD-04	Yes	84	84	0	0
RICH0045	UNNAMED TRIBUTARY OF JAMES RIVER	Yes	211	211	0	0
RICH0046	BAILEY CREEK,, RT. 5 BRIDGE	No	9	9	0	0
RICH0047	LANDFILL ASSESSMENT FOR RICH STATION FD-03	Yes	84	84	0	0
RICH0048	UNNAMED TRIBUTARY OF JAMES RIVER	Yes	191	191	0	0
RICH0049	UNNAMED STREAM DOWNSTREAM OF ALL SEEPS	Yes	167	167	0	0
RICH0050	51H 6	Yes	67	0	67	0
RICH0051	LANDFILL ASSESSMENT FOR RICH STATION FD-05	Yes	29	29	0	0
RICH0052	UNNAMED TRIBUTARY OF JAMES RIVER	Yes	191	191	0	0
RICH0053	LANDFILL ASSESSMENT FOR RICH STATION FD-02	Yes	29	29	0	0
RICH0054	LANDFILL ASSESSMENT FOR RICH STATION FD-06	Yes	53	53	0	0
RICH0055	MOUTH OF AN UNNAMED TRIBUTARY AT JAMES RIVER	Yes	316	316	0	0
RICH0056	POINT WHERE UNNAMED TRIB OF JAMES R. ENTERS PARK	Yes	238	238	0	0
RICH0057	FOURMILE CREEK, KINGSLAND ROAD	No	11	11	0	0
RICH0058	LANDFILL ASSESSMENT FOR RICH STATION FD-01	No	5	5	0	0
RICH0059	JAMES RIVER, BUOY 160	No	603	603	0	0
RICH0060 <sup>1</sup>	BUOY 163	No	760	0	760	0
RICH0061 <sup>1</sup>	RT. 5 BRIDGE	No	1282	1282	0	0
RICH0062	VIMS STATION J81 - JAMES RIVER	No	0	0	0	0
RICH0063	TURKEY ISLAND CREEK, WARRINER ROAD	No	4	4	0	0
RICH0064 <sup>1</sup>	BUOY 165-AT FALLING CREEK-(CHESTERFIELD COUNTY)	No	665	599	66	0
RICH0065 <sup>1</sup>	RT. 1 BRIDGE	No	5317	2819	1688	810
RICH0066 <sup>1</sup>	APPROX 100 YDS FROM MOUTH OF CREEK	No	1377	0	928	449
RICH0067	FALLING CREEK EXIT OFF I-95	No	3738	1337	1971	430
RICH0068	FOURMILE CREEK, I-295 BRIDGE	No	4	4	0	0
RICH0069	BUOY 166	No	9197	7617	865	715
RICH0070	BELOW DEEPWATER TERM R"166" J04	No	188	0	0	188
RICH0071	VIMS STATION A55 -JAMES RIVER	No	0	0	0	0

**Station Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station Ident.	Location Description	In Park	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75
RICH0072	VIMS STATION J89 - JAMES RIVER	No	0	0	0	0
RICH0073	VIMS STATION A55-JAMES RIVER	No	266	0	0	266
RICH0074	FOURMILE CREEK, DORAN RD	No	13	13	0	0
RICH0075	UNNAMED TRIB TO FOURMILE CR. BELOW DOREY PARK	No	4	4	0	0
RICH0076	ABOVE UT CONFLUENCE, 160M ABOVE DORAN RD.	No	4	4	0	0
RICH0077	JAMES RIVER, OFF DEEPWATER TERMINAL	No	597	597	0	0
RICH0078	DEERLICK BRANCH, DARBYTOWN ROAD	No	13	13	0	0
RICH0079	RT. 10 BRIDGE	No	852	0	562	290
RICH0080	WALMSLEY BLVD.	No	1296	0	825	471
RICH0081	HOPKINS ROAD BRIDGE	No	860	0	568	292
RICH0082	FALLING CREEK NEAR DREWRY'S BLUFF, VA	No	778	0	0	778
RICH0083	NEAR DAM-FALLING CREEK RESEVOIR CHESTERFIELD CO.	No	353	150	203	0
RICH0084	WHITE OAK SWAMP AT RT 156 AT ELKO, VA	No	292	280	12	0
RICH0085	WHITE OAK SWAMP, RT. 156 BRIDGE	No	967	967	0	0
RICH0086	FOURMILE CREEK, DARBYTOWN RD	No	13	13	0	0
RICH0087	FOUR MILE CR. LOST COUNTRY DR ABOVE DARBYTOWN RD	No	8	8	0	0
RICH0088	WHITE OAK SWAMP NEAR WHITE OAK SWAMP, VA	No	20	0	20	0
RICH0089	BUOY 168	No	1534	0	817	717
RICH0090	JAMES RIVER, BUOY 168	No	130	0	0	130
RICH0091	GOODE CREEK, COMMERCE ROAD	No	261	261	0	0
RICH0092	BELOW GOODE CREEK N°172" J03	No	207	0	0	207
RICH0093	JAMES RIVER, BUOY 173 OFF GOODE CREEK	No	601	601	0	0
RICH0094	RT. 5 BRIDGE	No	5881	3281	2093	507
RICH0095	CHICKAHOMINY RIV AT RT 60 NR WHITE OAK SWAMP, VA	No	3	0	3	0
RICH0096	RT. 60 BRIDGE	No	2197	19	870	1308
RICH0097	JAMES RIVER, TERMINAL BOUY 175	No	260	0	121	139
RICH0098	JAMES RIVER, ABOVE BAILEY BAY	No	200	0	0	200
RICH0099	FONTICELLO SPRING AT RICHMOND, VA	No	458	258	200	0
RICH0100	CHICKAHOMINY RIV AT I64 NR WHITE OAK SWAMP, VA	No	244	244	0	0
RICH0101	FOREST HILL AVENUE BRIDGE	No	3723	1288	2008	427
RICH0102	GOVERNMENT RD. BRIDGE	No	2904	807	1987	110
RICH0103	RT. 5 BRIDGE WILLIAMSBURG RD.	No	299	0	0	299
RICH0104	REEDY CREEK, RIVERSIDE DRIVE, RICHMOND	No	616	616	0	0
RICH0105	ROCK OFF LONE STAR CEMENT CO., DOCK ST.RICHMOND	No	2028	600	737	691
RICH0106	WAYSIDE SPRING AT RICHMOND, VA	No	575	258	317	0
RICH0107	JAMES RIVER AT MOUTH OF REEDY CREEK	No	278	278	0	0
RICH0108	JAMES RIVER,DOWNSTREAM CANOE RUN CSO,SOUTH BANK	No	658	658	0	0
RICH0109	JAMES RIVER, BELOW I95	No	537	0	537	0
RICH0110	JAMES RIVER UPSTREAM OCANOE RIN CSO, SOUTH BANK	No	636	636	0	0
RICH0111	SOUTH BANK OF THE JAMES RIVER BELOW FALL ZONE	No	0	0	0	0
RICH0112	JAMES RI. 676M ABOVE MOUTH OF REEDY CREEK	No	277	277	0	0
RICH0113	I 95 BRIDGE (CITY OF RICHMOND)	No	138	0	138	0
RICH0114	JAMES RIVER AT TEXAS AVENUE BEACH	No	270	270	0	0
RICH0115	JAMES RIVER,I-95 BR.AT NORTH BANK, DS SHOCKOE	No	659	659	0	0
RICH0116	RT. 360 BRIDGE	No	14819	7667	6160	992
RICH0117	MAYO'S BRIDGE JRWQMP STA.2 VIMS SLACK WATER STA.	No	0	0	0	0
RICH0118	JAMES RIVER, MANCHERSTER BR. NEAR SOUTH BANK	No	494	494	0	0
RICH0119	JAMES RIVER,MAYOS BR., NORTH CHANNEL US SHOCKOE	No	635	635	0	0
RICH0120	BOULEVARD BRIDGE	No	1365	0	598	767
RICH0121	JAMES RIVER AT RICHMOND, VA	No	663	0	663	0
RICH0122	JEFFERDON DAVIS HIGHWAY BR J02	No	56	0	0	56
RICH0123	NORTH BANK JAMES RIVER BELOW FALL ZONE RICHMOND	No	0	0	0	0
RICH0124	JAMES RIVER AT DOWNSTREAM END OF HAXALL CANAL	No	270	270	0	0
RICH0125	JAMES RIVER,DOWNSTREAM PARKHYDRO CSO, NORTH BANK	No	658	658	0	0
RICH0126	JAMES RIVER,UPSTREAM PARKHYDRO CSO, NORTH BANK	No	631	631	0	0
RICH0127	JAMES RIVER, AT TREDEGAR IRON WORKS	No	278	278	0	0
RICH0128	BYRD PARK SPRING AT RICHMOND, VA	No	450	256	194	0
RICH0129	JAMES RIVER AT RICHMOND	No	723	102	363	258
RICH0130	RT. 156 BRIDGE	No	3854	1650	881	1323
RICH0131	CHICKAHOMINY RIVER AT RT 156 NR SEVEN PINES, VA	No	1040	1028	12	0
RICH0132	CHICKAHOMINY RIV AT RT 615 NR HIGHLAND SPGS, VA	No	272	264	8	0
RICH0133	CHICKAHOMINY RIVER, RT. 615 BRIDGE	No	16	16	0	0
RICH0134	RT. 360 BRIDGE	No	5789	2548	1956	1285
RICH0135	CHICKAHOMINY R AT RT 360 NR MECHANICSVILLE, VA	No	4	4	0	0
RICH0136	BEAVERDAM CREEK AT RT 156 AT MECHANICSVILLE, VA	Yes	259	247	12	0
RICH0137	YOUNGS POND CENTER (HENRICO CO)	No	0	0	0	0
RICH0138	YOUNGS POND INFLOW (HENRICO CO)	No	0	0	0	0
RICH0139	YOUNGS POND OUTFALL	No	0	0	0	0
RICH0140	BEAVERDAM CREEK, RT 156 BRIDGE	No	9	9	0	0
RICH0141	THREE LAKES PARK LAKE CENTER (HENRICO CO)	No	6	6	0	0
RICH0142	UPHAM BROOK AT RT 627 NEAR RICHMOND, VA	No	24	12	12	0

**Station Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station Ident.	Location Description	In Park	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75
RICH0143 <sup>1</sup>	<a href="#">RT. 627 BRIDGE</a>	No	2113	0	859	1254
RICH0144 <sup>1</sup>	<a href="#">CHICKAHOMINY RIVER AT RT 627 NEAR RICHMOND, VA</a>	No	258	246	12	0
RICH0145 <sup>1</sup>	<a href="#">UPHAM BROOK NEAR RICHMOND, VA</a>	No	903	903	0	0
RICH0146 <sup>1</sup>	<a href="#">RT. 1 BRIDGE (BROOK ROAD)</a>	No	5271	3554	1717	0
RICH0147 <sup>1</sup>	<a href="#">CHICKAHOMINY RIVER NEAR ATLEE, VA</a>	No	805	805	0	0
RICH0148 <sup>1</sup>	<a href="#">CHICKAHOMINY RIVER AT I-295 NEAR ATLEE, VA</a>	No	19	16	3	0
RICH0149	<a href="#">TURNER RUN</a>	No	27	27	0	0

<sup>1</sup>Longer Term Station With At Least 6 Parameters Having An Average of 1 Or More Observations Per Year During a Period of Record Extending At Least 2 Years.

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Park
00001	X-SEC. LOC., HORIZ (FT. FROM R BANK LOOK UPSTR.)	1	0	1	0	1	0
00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	5135	2473	1581	1081	62	0
00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	1986	0	904	1082	37	0
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12618	4782	6162	1674	114	7
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	488	305	181	2	17	1
00023	SAMPLE WEIGHT IN POUNDS	49	0	27	22	4	0
00024	SAMPLE LENGTH IN INCHES	49	0	27	22	4	0
00025	BAROMETRIC PRESSURE (MM OF HG)	109	109	0	0	8	1
00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	127	118	9	0	12	1
00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	167	118	49	0	14	2
00041	WEATHER (WMO CODE 4501)	6085	3013	1995	1077	64	0
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	367	196	171	0	3	0
00060	FLOW, STREAM, MEAN DAILY CFS	113	0	46	67	2	0
00061	FLOW, STREAM, INSTANTANEOUS CFS	301	153	148	0	29	6
00062	ELEVATION, RESERVOIR SURFACE WATER IN FEET	1	0	1	0	1	0
00064	DEPTH OF STREAM, MEAN (FT)	1	1	0	0	1	0
00065	STAGE, STREAM (FEET)	3	3	0	0	3	0
00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	1932	1467	230	235	35	0
00070	TURBIDITY, (JACKSON CANDLE UNITS)	490	309	131	50	26	1
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	838	838	0	0	25	0
00077	TRANSPARENCY, SECCHI DISC (INCHES)	14	0	0	14	4	0
00078	TRANSPARENCY, SECCHI DISC (METERS)	415	331	84	0	12	0
00080	COLOR (PLATINUM-COBALT UNITS)	229	182	2	45	17	2
00091	FLOW, MINIMUM OF FLOW RANGE CFS	1	0	1	0	1	0
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	4784	4036	748	0	65	0
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	1716	1372	318	26	58	7
00096	SALINITY AT 25 DEGREES C (MG/ML)	1932	1904	28	0	24	0
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	3749	3702	47	0	62	5
00300	OXYGEN, DISSOLVED MG/L	8565	969	5948	1648	57	1
00310	BOD, 5 DAY, 20 DEG C MG/L	2689	1441	979	269	50	0
00335	COD, .025N K2CR2O7 MG/L	14	2	1	11	2	0
00340	COD, .25N K2CR2O7 MG/L	2138	1303	825	10	27	0
00400	PH (STANDARD UNITS)	6610	3408	2023	1179	97	2
00403	PH, LAB, STANDARD UNITS SU	1259	1012	95	152	53	1
00405	CARBON DIOXIDE (MG/L AS CO2)	22	0	19	3	3	1
00406	PH, FIELD, STANDARD UNITS SU	6	6	0	0	6	5
00409	ALKALINITY,TOTAL,LOW LEVEL GRAN ANALYSIS UEQ/L	1	1	0	0	1	0
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	1253	965	131	157	47	1
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	27	0	24	3	12	0
00435	ACIDITY, TOTAL (MG/L AS CACO3)	4	0	3	1	1	0
00440	BICARBONATE ION (MG/L AS HCO3)	68	1	19	48	4	1
00445	CARBONATE ION (MG/L AS CO3)	21	0	17	4	3	1
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	3	3	0	0	3	0
00453	BICARBONATE,WATER,DISS,INCR TIT, FIELD,AS HC03,MG/L	3	3	0	0	3	0
00480	SALINITY - PARTS PER THOUSAND	12	0	12	0	8	0
00500	RESIDUE, TOTAL (MG/L)	1900	768	681	451	43	0
00505	RESIDUE, TOTAL VOLATILE (MG/L)	1901	763	679	459	42	0
00510	RESIDUE, TOTAL FIXED (MG/L)	1880	765	677	438	43	0
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	35	0	33	2	13	0
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	3928	1979	1417	532	47	0
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	3920	1971	1396	553	46	0
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	3860	1977	1355	528	45	0
00545	RESIDUE, SETTLEABLE (ML/L)	37	0	33	4	4	0
00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC, MG/L	56	56	0	0	4	0
00572	BIOMASS, PERIPHYTON (GRAMS PER SQUARE METER)	3	0	1	2	1	0
00573	BIOMASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	1	0	1	0	1	0
00600	NITROGEN, TOTAL (MG/L AS N)	143	0	123	20	2	0
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	114	0	100	14	1	0
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	943	906	37	0	11	1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	4226	1303	1966	957	64	0
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	916	883	33	0	4	1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	3971	1223	1856	892	55	0
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	908	884	24	0	4	1
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	3613	1221	1502	890	55	0
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	24	0	24	0	9	0
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	4862	1895	2003	964	69	1
00630	NITRITE PLUS NITRATE, TOTAL 1 DET, (MG/L AS N)	622	70	478	74	35	0
00631	NITRITE PLUS NITRATE, DISS. 1 DET, (MG/L AS N)	245	211	34	0	20	2
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	51	0	0	51	5	0
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	76	0	2	74	10	1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	2802	1905	877	20	49	1

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Park
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	756	723	33	0	11	1
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	32	0	32	0	9	0
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	2378	1626	752	0	33	2
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	2751	1646	1073	32	51	1
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	1	1	0	0	1	0
00687	CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	5	5	0	0	4	0
00690	CARBON, TOTAL (MG/L AS C)	15	0	0	15	4	0
00691	CARBON, DISSOLVED INORGANIC (MG/L AS C)	1	1	0	0	1	0
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	68	44	24	0	4	0
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	890	834	4	52	26	1
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO <sub>3</sub> )	10	0	2	8	2	1
00915	CALCIUM, DISSOLVED (MG/L AS CA)	93	43	5	45	12	2
00916	CALCIUM, TOTAL (MG/L AS CA)	1	0	0	1	1	0
00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	7	7	0	0	6	6
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	93	43	5	45	12	2
00927	MAGNESIUM, TOTAL (MG/L AS MG)	12	11	0	1	6	0
00929	SODIUM, TOTAL (MG/L AS NA)	1	0	0	1	1	0
00930	SODIUM, DISSOLVED (MG/L AS NA)	94	43	5	46	13	2
00931	SODIUM ADSORPTION RATIO	3	0	2	1	2	1
00932	SODIUM, PERCENT	3	0	2	1	2	1
00935	POTASSIUM, DISSOLVED (MG/L AS K)	58	43	5	10	12	2
00937	POTASSIUM, TOTAL MG/L AS K)	2	0	0	2	1	0
00940	CHLORIDE, TOTAL IN WATER MG/L	1563	1041	293	229	59	2
00941	CHLORIDE, DISSOLVED IN WATER MG/L	1	1	0	0	1	0
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	1102	1029	23	50	44	2
00946	SULFATE, DISSOLVED (MG/L AS SO <sub>4</sub> )	1	1	0	0	1	0
00950	FLUORIDE, DISSOLVED (MG/L AS F)	93	46	2	45	11	2
00951	FLUORIDE, TOTAL (MG/L AS F)	268	268	0	0	12	0
00955	SILICA, DISSOLVED (MG/L AS SI <sub>02</sub> )	965	917	3	45	23	2
00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	4	4	0	0	4	4
01000	ARSENIC, DISSOLVED (UG/L AS AS)	2	2	0	0	2	2
01002	ARSENIC, TOTAL (UG/L AS AS)	372	164	148	60	46	3
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	46	21	25	0	24	6
01004	ARSENIC TOTAL IN FISH OR ANIMAL WET WT MG/KG	18	6	12	0	2	0
01005	BARIUM, DISSOLVED (UG/L AS BA)	8	8	0	0	5	5
01007	BARIUM, TOTAL (UG/L AS BA)	6	6	0	0	6	6
01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	7	7	0	0	6	6
01012	BERYLLIUM, TOTAL (UG/L AS BE)	14	14	0	0	8	4
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	18	18	0	0	15	6
01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	7	7	0	0	6	6
01020	BORON, DISSOLVED (UG/L AS B)	2	2	0	0	2	2
01022	BORON, TOTAL (UG/L AS B)	2	2	0	0	2	2
01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	7	7	0	0	6	6
01025	CADMUM, DISSOLVED (UG/L AS CD)	22	22	0	0	12	6
01027	CADMUM, TOTAL (UG/L AS CD)	426	171	161	94	52	7
01028	CADMUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	46	21	25	0	24	6
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	47	22	25	0	25	6
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	9	9	0	0	6	5
01034	CHROMIUM, TOTAL (UG/L AS CR)	617	172	234	211	53	7
01037	COBALT, TOTAL (UG/L AS CO)	35	35	0	0	12	5
01040	COPPER, DISSOLVED (UG/L AS CU)	22	22	0	0	12	6
01042	COPPER, TOTAL (UG/L AS CU)	604	168	232	204	53	7
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	46	21	25	0	24	6
01045	IRON, TOTAL (UG/L AS FE)	214	167	25	22	28	3
01046	IRON, DISSOLVED (UG/L AS FE)	122	119	2	1	15	7
01049	LEAD, DISSOLVED (UG/L AS PB)	22	22	0	0	12	6
01051	LEAD, TOTAL (UG/L AS PB)	562	168	230	164	53	7
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	46	21	25	0	24	6
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	12	12	0	0	10	6
01055	MANGANESE, TOTAL (UG/L AS MN)	220	167	24	29	33	3
01056	MANGANESE, DISSOLVED (UG/L AS MN)	82	82	0	0	14	6
01059	THALLIUM, TOTAL (UG/L AS TL)	14	14	0	0	8	4
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	8	8	0	0	5	5
01062	MOLYBDENUM, TOTAL (UG/L AS MO)	2	2	0	0	2	2
01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	7	7	0	0	6	6
01065	NICKEL, DISSOLVED (UG/L AS NI)	224	8	167	49	41	5
01067	NICKEL, TOTAL (UG/L AS NI)	230	167	63	0	35	7
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	46	21	25	0	24	6
01069	NICKEL, TOTAL IN FISH OR ANIMALS-WET WEIGHT MG/KG	3	3	0	0	1	0
01073	THALLIUM, TISSUE, WET WEIGHT, MG/KG	3	3	0	0	1	0
01077	SILVER, TOTAL (UG/L AS AG)	28	4	24	0	5	4

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Park
01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	9	9	0	0	7	0
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	2	2	0	0	2	2
01082	STRONTIUM, TOTAL (UG/L AS SR)	2	2	0	0	2	2
01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	7	7	0	0	6	6
01085	VANADIUM, DISSOLVED (UG/L AS V)	2	2	0	0	2	2
01087	VANADIUM, TOTAL (UG/L AS V)	6	6	0	0	6	6
01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	7	7	0	0	6	6
01090	ZINC, DISSOLVED (UG/L AS ZN)	22	22	0	0	12	6
01092	ZINC, TOTAL (UG/L AS ZN)	613	168	234	211	53	7
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	39	14	25	0	18	0
01097	ANTIMONY, TOTAL (UG/L AS SB)	4	4	0	0	4	4
01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	5	5	0	0	4	0
01102	TIN, TOTAL (UG/L AS SN)	4	4	0	0	4	4
01105	ALUMINUM, TOTAL (UG/L AS AL)	3	3	0	0	3	2
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	8	8	0	0	5	5
01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	12	12	0	0	10	6
01130	LITHIUM, DISSOLVED (UG/L AS LI)	2	0	2	0	2	0
01140	SILICON, DISSOLVED (UG/L AS SI)	267	242	25	0	5	2
01142	SILICON, TOTAL (UG/L AS SI)	2	2	0	0	2	2
01145	SELENIUM, DISSOLVED (UG/L AS SE)	2	2	0	0	2	2
01147	SELENIUM, TOTAL (UG/L AS SE)	90	90	0	0	21	7
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	19	19	0	0	16	6
01149	SELENIUM, TOTAL IN FISH OR ANIMALS WET WGT MG/KG	18	6	12	0	2	0
01150	TITANIUM, DISSOLVED (UG/L AS TI)	2	2	0	0	2	2
01152	TITANIUM, TOTAL (UG/L AS TI)	2	2	0	0	2	2
01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	7	7	0	0	6	6
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	5	5	0	0	4	0
01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	917	917	0	0	50	0
02152	INVALID PARAMETER	1	0	1	0	1	0
05053	INVALID PARAMETER	1	0	1	0	1	0
05109	INVALID PARAMETER	1	0	1	0	1	0
31501	COLIFORM,TOT,MEMBRANE FILTER,IMMED.M-ENDO MED,35C	60	0	46	14	1	0
31503	COLIFORM,TOT,MEMBR FILTER,DELAYED,M-ENDO MED,35 C	1	0	0	1	1	0
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	290	0	6	284	20	0
31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	100	75	25	0	9	0
31614	FECAL COLIFORM,MPN,TUBE CONFIGURATION	13	13	0	0	3	0
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	1816	1786	0	30	40	0
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	3612	888	1864	860	47	0
31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	55	0	55	0	2	0
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	143	0	124	19	2	0
31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	2	0	1	1	1	0
32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	4	4	0	0	4	4
32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	4	4	0	0	4	4
32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	4	4	0	0	4	4
32104	BROMOFORM,WHOLE WATER,UG/L	4	4	0	0	4	4
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	4	4	0	0	4	4
32106	CHLOROFORM,WHOLE WATER,UG/L	4	4	0	0	4	4
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	70	6	64	0	12	0
32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	21	2	7	12	5	0
32211	CHLOROPHYLL-A UG/L SPECTROPHOTOMETRIC ACID. METH.	1	1	0	0	1	0
32213	PHEOPHYTIN-A,FLUORIMETRIC METHOD (UG/L)	6	6	0	0	3	0
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	65	1	64	0	10	0
32219	PHEOPHYTIN RATIO(OD 663)SPECTRO,BEFORE/AFTER ACID	1	1	0	0	1	0
32226	CHLOROPHYLL B, PERIPHYTON, SPECTRO, MG/M2	1	0	0	1	1	0
32228	CHLOROPHYLL A, PERIPHYTON, SPECTRO, MG/M2	1	0	0	1	1	0
32230	CHLOROPHYLL A (MG/L)	95	0	79	16	1	0
32231	CHLOROPHYLL B (MG/L)	95	0	79	16	1	0
32240	TANNIN AND LIGNIN (MG/L)	23	23	0	0	6	0
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	71	66	0	5	5	0
34200	ACENAPHTHYLENE TOTWUG/L	4	4	0	0	4	4
34203	ACENAPHTHYLENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34205	ACENAPHTHENE TOTWUG/L	4	4	0	0	4	4
34208	ACENAPHTHENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34210	ACROLEIN TOTWUG/L	4	4	0	0	4	4
34215	ACRYLONITRILE TOTWUG/L	4	4	0	0	4	4
34220	ANTHRACENE TOTWUG/L	4	4	0	0	4	4
34223	ANTHRACENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	7	7	0	0	6	6
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	7	7	0	0	6	6
34250	BENZO-A-PYRENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34252	BERYLLIUM WET WGTTISMG/KG	3	3	0	0	1	0

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
34257	B-BHC-BETA DRY WGTBOTUG/KG	7	7	0	0	6	6
34258	B-BHC-BETA WET WGTTISMG/KG	2	2	0	0	1	0
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	12	12	0	0	11	0
34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	7	7	0	0	6	6
34263	DELTA BENZENE HEXACHLORIDE WET WGTTISMG/KG	2	2	0	0	1	0
34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	4	4	0	0	4	4
34292	N-BUTYL BENZYL PHTHALATE,WHOLE WATER,UG/L	4	4	0	0	4	4
34301	CHLOROBENZENE TOTWUG/L	4	4	0	0	4	4
34311	CHLOROETHANE TOTWUG/L	4	4	0	0	4	4
34320	CHRYSENE TOTWUG/L	4	4	0	0	4	4
34323	CHRYSENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34336	DIETHYL PHTHALATE TOTWUG/L	4	4	0	0	4	4
34341	DIMETHYL PHTHALATE TOTWUG/L	4	4	0	0	4	4
34351	ENDOSULFAN SULFATE TOTWUG/L	12	12	0	0	11	0
34356	ENDOSULFAN, BETA TOTWUG/L	12	12	0	0	11	0
34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	7	7	0	0	6	6
34360	ENDOSULFAN, BETA WET WGTTISMG/KG	2	2	0	0	1	0
34361	ENDOSULFAN, ALPHA TOTWUG/L	12	12	0	0	11	0
34365	ENDOSULFAN, ALPHA WET WGTTISMG/KG	2	2	0	0	1	0
34366	ENDRIN ALDEHYDE TOTWUG/L	12	12	0	0	11	0
34371	ETHYLBENZENE TOTWUG/L	4	4	0	0	4	4
34376	FLUORANTHENE TOTWUG/L	4	4	0	0	4	4
34379	FLUORANTHENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34381	FLUORENE TOTWUG/L	4	4	0	0	4	4
34384	FLUORENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	4	4	0	0	4	4
34396	HEXACHLOROETHANE TOTWUG/L	4	4	0	0	4	4
34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34408	ISOPHORONE TOTWUG/L	4	4	0	0	4	4
34413	METHYL BROMIDE TOTWUG/L	4	4	0	0	4	4
34418	METHYL CHLORIDE TOTWUG/L	4	4	0	0	4	4
34423	METHYLENE CHLORIDE TOTWUG/L	4	4	0	0	4	4
34428	N-NITROSO-DI-N-PROPYLAMINE TOTWUG/L	4	4	0	0	4	4
34433	N-NITROSODIPHENYLAMINE TOTWUG/L	4	4	0	0	4	4
34438	N-NITROSODIMETHYLAMINE TOTWUG/L	4	4	0	0	4	4
34445	NAPHTHALENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34447	NITROBENZENE TOTWUG/L	4	4	0	0	4	4
34452	PARACHLOROMETA CRESOL TOTWUG/L	4	4	0	0	4	4
34461	PHENANTHRENE TOTWUG/L	4	4	0	0	4	4
34464	PHENANTHRENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34469	PYRENE TOTWUG/L	4	4	0	0	4	4
34472	PYRENE DRY WGTBOTUG/KG	7	7	0	0	6	6
34475	TETRACHLOROETHYLENE TOTWUG/L	4	4	0	0	4	4
34480	THALLIUM DRY WGTBOTMG/KG	11	11	0	0	9	0
34488	TRICHLOROFLUOROMETHANE TOTWUG/L	4	4	0	0	4	4
34496	1,1-DICHLOROETHANE TOTWUG/L	4	4	0	0	4	4
34501	1,1-DICHLOROETHYLENE TOTWUG/L	4	4	0	0	4	4
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	4	4	0	0	4	4
34511	1,1,2-TRICHLOROETHANE TOTWUG/L	4	4	0	0	4	4
34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	4	4	0	0	4	4
34524	BENZO(GH)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	7	7	0	0	6	6
34529	BENZO(A)ANTHRACENE1,2-BENZANTHRACENDRY WGTBOTUG/KG	7	7	0	0	6	6
34536	1,2-DICHLOROBENZENE TOTWUG/L	4	4	0	0	4	4
34541	1,2-DICHLOROPROPANE TOTWUG/L	4	4	0	0	4	4
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	4	4	0	0	4	4
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	4	4	0	0	4	4
34556	1,2,5,6-DIBENZANTHRACENE TOTWUG/L	4	4	0	0	4	4
34566	1,3-DICHLOROBENZENE TOTWUG/L	4	4	0	0	4	4
34571	1,4-DICHLOROBENZENE TOTWUG/L	4	4	0	0	4	4
34581	2-CHLORONAPHTHALENE TOTWUG/L	4	4	0	0	4	4
34586	2-CHLOROPHENOL TOTWUG/L	4	4	0	0	4	4
34591	2-NITROPHENOL TOTWUG/L	4	4	0	0	4	4
34596	DI-N-OCTYL PHTHALATE TOTWUG/L	4	4	0	0	4	4
34601	2,4-DICHLOROPHENOL TOTWUG/L	4	4	0	0	4	4
34606	2,4-DIMETHYLPHENOL TOTWUG/L	4	4	0	0	4	4
34611	2,4-DINITROTOLUENE TOTWUG/L	4	4	0	0	4	4
34616	2,4-DINITROPHENOL TOTWUG/L	4	4	0	0	4	4
34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	4	4	0	0	4	4
34626	2,6-DINITROTOLUENE TOTWUG/L	4	4	0	0	4	4
34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	4	4	0	0	4	4
34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	4	4	0	0	4	4

**Parameter Period of Record Tabulation**  
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Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	4	4	0	0	4	4
34646	4-NITROPHENOL TOTWUG/L	4	4	0	0	4	4
34664	PCB - 1221 WET WGTTISMG/KG	2	2	0	0	1	0
34667	PCB - 1232 WET WGTTISMG/KG	2	2	0	0	1	0
34668	DICHLORODIFUOROMETHANE TOTWUG/L	4	4	0	0	4	4
34669	PCB - 1248 WET WGTTISMG/KG	2	2	0	0	1	0
34670	PCB - 1260 WET WGTTISMG/KG	2	2	0	0	1	0
34671	PCB - 1016 TOTWUG/L	12	12	0	0	11	0
34674	PCB - 1016 WET WGTTISMG/KG	2	2	0	0	1	0
34680	ALDRIN IN FISH TISSUE WET WEIGHT MG/KG	5	5	0	0	2	0
34682	CHLORDANE(TECH MIX & METABS),TISSUEWET WGTT,MG/KG	2	2	0	0	1	0
34684	DIELDRIN TISMG/KG	37	3	12	22	1	0
34685	ENDRIN WET WGTTISMG/KG	39	5	12	22	2	0
34686	HEPTACHLOR EPOXIDE WET WGTTISMG/KG	9	5	4	0	4	0
34687	HEPTACHLOR WET WGTTISMG/KG	39	5	12	22	2	0
34688	HEXAACHLOROBENZENE WET WGTTISMG/KG	17	5	12	0	2	0
34689	PCB - 1242 WET WGTTISMG/KG	2	2	0	0	1	0
34690	PCB - 1254 WET WGTTISMG/KG	2	2	0	0	1	0
34691	TOXAPHENE WET WGTTISMG/KG	35	5	12	18	2	0
34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	4	4	0	0	4	4
34696	NAPHTHALENE TOTWUG/L	4	4	0	0	4	4
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	4	4	0	0	4	4
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	4	4	0	0	4	4
38442	DICAMBA (BANVEL) WATER,DISSUG/L	10	10	0	0	10	0
38451	DICHLORPROP WATER,SUSPUG/L	10	10	0	0	10	0
38462	FAMPHUR WATER, TOTUG/L	4	4	0	0	4	4
38744	CHLORPYRFOS-METHYL TISWETWGTMG/KG	2	2	0	0	1	0
38745	2,4-DB WATER, TOTUG/L	10	10	0	0	10	0
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	38	16	22	0	16	4
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	16	16	0	0	12	0
39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	22	0	22	0	10	0
39063	CHLORDANE-CIS ISOMER, TISSUE WET WGT (UG/G)	15	3	12	0	1	0
39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	22	0	22	0	10	0
39066	CHLORDANE-TRANS ISOMER, TISSUE WET WGT (UG/G)	15	3	12	0	1	0
39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	22	0	22	0	10	0
39069	CHLORDANE-NONACHLOR,CIS ISO, TISSUE WET WGT(UG/G)	17	5	12	0	2	0
39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	7	7	0	0	6	6
39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	22	0	22	0	10	0
39072	CHLORDANE-NONACHLOR,TRANS ISO, TISSUE,WET WT,UG/G	17	5	12	0	2	0
39074	BHC-ALPHA ISOMER, TISSUE UG/G WET WGT	21	5	12	4	2	0
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	7	7	0	0	6	6
39080	PRONAMIDE IN WATER, TOTALUG/L	4	4	0	0	4	4
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	3	3	0	0	3	0
39100	BIS(2-ETHYLHEXYL) PHTHALATE,WHOLE WATER,UG/L	6	6	0	0	5	4
39105	PERCENT FAT HEXANE EXTRACTION	39	5	12	22	2	0
39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	4	4	0	0	4	4
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	4	4	0	0	4	4
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	4	4	0	0	4	4
39290	DDT TOTAL IN TISSUE WET WGT BASIS (UG/G)	39	5	12	22	2	0
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12	0
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	7	7	0	0	6	6
39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	22	0	22	0	10	0
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	7	7	0	0	6	6
39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12	0
39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	22	0	22	0	10	0
39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	7	7	0	0	6	6
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12	0
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	7	7	0	0	6	6
39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	22	0	22	0	10	0
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	7	7	0	0	6	6
39329	O,P DDE IN TISSUE, WET WGT(UG/G)	1	0	1	0	1	0
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	57	12	45	0	19	0
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	30	20	10	0	22	6
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	12	12	0	0	11	0
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	12	12	0	0	11	0
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	12	12	0	0	11	0
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	7	7	0	0	6	6
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	23	1	22	0	11	0
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	16	16	0	0	12	0
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	16	16	0	0	12	0
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	16	16	0	0	12	0

**Parameter Period of Record Tabulation**  
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Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
39369	DDE IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	63	0	63	0	1	0
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	16	16	0	0	12	0
39374	DDT IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	22	0	22	0	1	0
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	41	12	22	7	16	0
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	23	23	0	0	18	6
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12	0
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	23	23	0	0	18	6
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11	0
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	16	16	0	0	12	0
39404	DIELDRIN IN TISSUE WET WGT (UG/G)	2	2	0	0	1	0
39406	DIELDRIN IN AQ ORGANISMS WT WGT BASIS (UG/G)	1	0	1	0	1	0
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11	0
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	23	23	0	0	18	6
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11	0
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	7	7	0	0	6	6
39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4	4
39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4	4
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	22	0	22	0	10	0
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	12	12	0	0	11	0
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	12	12	0	0	11	0
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	12	12	0	0	11	0
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	12	12	0	0	11	0
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	12	12	0	0	11	0
39515	PCBS (MG/KG) FISH TISSUE MG/KG	12	2	10	0	3	0
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	24	1	22	1	11	0
39520	PCBS IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	84	0	84	0	1	0
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	16	16	0	0	12	0
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4	4
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	25	0	24	1	16	0
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	10	0	10	0	9	0
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	22	0	22	0	10	0
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	4	4	0	0	4	4
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	10	10	0	0	10	0
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	10	10	0	0	10	0
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	6	6	0	0	6	6
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	10	10	0	0	10	0
39781	LINDANE AQUATIC ORGANISMS WT WGT BASIS(UG/G)	3	3	0	0	1	0
39785	GAMMA-BHC(LINDANE),TISSUE,WET WEIGHT,MG/KG	14	2	12	0	2	0
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4	4
45007	TOLUIDINE WH WAT UG/L	4	4	0	0	4	4
45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	7	7	0	0	6	6
45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	4	4	0	0	4	4
45651	PCB - 1262, TISSUE, WET WEIGHT MG/KG	2	2	0	0	1	0
46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4	4
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	32	32	0	0	5	0
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	225	225	0	0	3	0
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	216	216	0	0	3	0
49570	NITROGEN PARTICULÁTE, FIELD FILT., SUSP., WTR MG/L	216	216	0	0	3	0
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	225	225	0	0	3	0
49572	PHOSPHOROUS TOTAL, FIELD FILTRED, DISSLVD,WTR MG/L	227	227	0	0	3	0
49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49761	C3 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49767	C1 ALKYL DIBENZOTHIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	7	7	0	0	6	6
49769	C3 ALKYL DIBENZOTHIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	7	7	0	0	6	6
49782	NAPHTHALENE, C1 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49783	NAPHTHALENE, C2 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49784	NAPHTHALENE, C3 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49785	NAPHTHALENE, C4 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49805	C1 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49806	C2 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49807	C3 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
49808	C4 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	55	0	31	24	27	0
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50120	ARSENIC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	2	2	0	0	2	2
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Park
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50138	SELENIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	2	2	0	0	2	2
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	2	2	0	0	2	2
50141	TITANIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	2	2	0	0	2	2
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	2	2	0	0	2	2
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	8	8	0	0	5	5
50590	PCB CONGENER IUPAC#107, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50592	PCB CONGENER IUPAC#207, SEDIMENT, DRY WEIGHT NG/G	6	6	0	0	5	5
50595	PCB CONGENER IUPAC#25, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50596	PCB CONGENER IUPAC#29, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50601	PCB CONGENER IUPAC#53, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50602	PCB CONGENER IUPAC#63, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50603	PCB CONGENER IUPAC#81, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50604	PCB CONGENER IUPAC#84, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50605	PCB CONGENER IUPAC#1, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50607	PCB CONGENER IUPAC#205, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50609	PCB CONGENER IUPAC#193, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50610	PCB CONGENER IUPAC#191, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50611	PCB CONGENER IUPAC#189, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50612	PCB CONGENER IUPAC#175, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50614	PCB CONGENER IUPAC#130, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50615	PCB CONGENER IUPAC#119, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
50784	ALPHA-CHLORDANE SEDIMENT,DRY WT,BOTTOM DEP UG/KG	7	7	0	0	6	6
50910	DIBENZO(A,H)ANTHACENE SED DRY WEIGHT BOTTOM UG/KG	7	7	0	0	6	6
50942	1-METHYLPHENANTHRENE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
50943	2,6-DIMETHYLNAPHTHALENE, DRY WEIGHT, SEDIMENTUG/KG	7	7	0	0	6	6
50947	PCB CONGENER #28 (CL3), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50948	PCB CONGENER #52 (CL4), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50949	PCB CONGENER #44 (CL4), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50950	PCB CONGENER #66 (CL4), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50951	PCB CONGENER #77/110 (CL4/CL5) DRY WGT,SED UG/KG	7	7	0	0	6	6
50953	PCB CONGENER #118 (CL5), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50955	PCB CONGENER #105 (CL5), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50958	PCB CONGENER #187 (CL7), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50959	PCB CONGENER #128 (CL6), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50960	PCB CONGENER #180 (CL7), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50963	PCB CONGENER #206 (CL9), DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50964	PCB CONGENER #209 (CL10),DRY WEIGHT,SEDIMENT UG/KG	7	7	0	0	6	6
50966	GAMMA-CHLORDANE, DRY WEIGHT, SEDIMENT UG/KG	7	7	0	0	6	6
60050	ALGAE, TOTAL (CELLS/ML)	1	0	1	0	1	0
61080	1,6,7-TRIMETHYLNAPHTHALENE SEDIMENT DRY WT UG/KG	7	7	0	0	6	6
61098	C4-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	7	7	0	0	6	6
61100	C3-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	7	7	0	0	6	6
61101	C2-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	7	7	0	0	6	6
61104	C1-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	7	7	0	0	6	6
61105	C1-FLUORANTHENES+PYRENES SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61115	PCB CONGENER #169 (C16) SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61160	PCB CONGENER #126 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61161	PCB CONGENER # 77 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61197	TRICHLOROBIPHENYL,2,3',5,-(PCB#26)DRY WT BOT UG/KG	7	7	0	0	6	6
61239	PAHS WITHOUT PERYLENE, TOTAL,SEDIMENT,DRY WT UG/KG	7	7	0	0	6	6
61261	PCB CONGENER #8/5, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61262	PCB CONGENER #195/208, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61263	PCB CONGENER #18/17, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61264	PCB CONGENER #170/190, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61265	PCB CONGENER #153/132, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61266	PCB CONGENER #138/160, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61268	PCB CONGENER #101/90, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61285	1-METHYLNAPHTHALENE, SEDIMENT, DRY WEIGHT NG/G	7	7	0	0	6	6
61290	BENZENE, TOTAL WATER UG/L	4	4	0	0	4	4
61291	TOLUENE, TOTAL WATER UG/L	4	4	0	0	4	4
61783	PCB CONGERNER #80/95 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61784	PCB CONGERNER #61/74 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61785	PCB CONGERNER #41/64 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61786	PCB CONGERNER #37/42/59 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61787	PCB CONGERNER #47/75 SEDIMENT DRY WEIGHT UG/KG	6	6	0	0	5	5

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Park
61788	PCB CONGERNER #22/51 SEDIMENT DRY WEIGHT UG/KG	6	6	0	0	5	5
61789	PCB CONGERNER #20/33 SEDIMENT DRY WEIGHT UG/KG	6	6	0	0	5	5
61794	POLYAMMATIC HYDROCARBON TOT W/ PERYLN SED DRYUG/KG	7	7	0	0	6	6
61795	PCB CONGERNER #196/203 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61796	PCB CONGERNER #153/173/201 SEDIMENT DRY WGHT UG/KG	7	7	0	0	6	6
61797	PCB CONGERNER #171/202 SEDIMENT DRY WEIGHT UG/KG	6	6	0	0	5	5
61798	PCB CONGERNER #176/137 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61799	PCB CONGERNER #141/179 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61800	PCB CONGERNER #123/149 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61801	PCB CONGERNER #87/115 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61802	PCB CONGERNER #56/60 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61803	PCB CONGERNER #55/91 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61804	PCB CONGERNER #16/32 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61805	PCB CONGERNER #24/27 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61806	PCB CONGERNER #7/9 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61807	PCB CONGERNER #194 SEDIMENT DRY WEIGHT UG/KG	6	6	0	0	5	5
61808	PCB CONGERNER #199 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61809	PCB CONGERNER #200 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61810	PCB CONGERNER #197 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61811	PCB CONGERNER #172 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61812	PCB CONGERNER #156 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61813	PCB CONGERNER #177 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61814	PCB CONGERNER #174 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61815	PCB CONGERNER #185 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61816	PCB CONGERNER #167 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61817	PCB CONGERNER #183 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61818	PCB CONGERNER #166 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61819	PCB CONGERNER #178 SEDIMENT DRY WEIGHT UG/KG	6	6	0	0	5	5
61820	PCB CONGERNER #129 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61821	PCB CONGERNER #158 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61822	PCB CONGERNER #146 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61823	PCB CONGERNER #114 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61824	PCB CONGERNER #135 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61825	PCB CONGERNER #151 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61826	PCB CONGERNER #82 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61827	PCB CONGERNER #136 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61828	PCB CONGERNER #85 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61829	PCB CONGERNER #97 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61830	PCB CONGERNER #83 SEDIMENT DRY WEIGHT UG/KG	6	6	0	0	5	5
61831	PCB CONGERNER #99 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61832	PCB CONGERNER #92 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61833	PCB CONGERNER #70 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61834	PCB CONGERNER #67 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61835	PCB CONGERNER #40 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61836	PCB CONGERNER #72 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61837	PCB CONGERNER #48 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61838	PCB CONGERNER #49 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61839	PCB CONGERNER #69 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
61846	4,4'DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	7	7	0	0	6	6
61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	160	0	97	63	3	1
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	4	0	2	2	3	1
70302	SOLIDS, DISSOLVED-TONS PER DAY	115	0	95	20	2	0
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	117	0	97	20	3	1
70320	MOISTURE CONTENT (PERCENT OF TOTAL WET WEIGHT)	15	3	12	0	1	0
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	30	28	2	0	9	1
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	2001	0	1130	871	37	0
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	2589	593	1123	873	57	0
70953	CHLOROPHYLL-A,PHYTOPLANKTON UG/L,CHROMO-FLUORO	19	0	19	0	1	0
70954	CHLOROPHYLL-B,PHYTOPLANKTON UG/L,CHROMO-FLUORO	19	0	19	0	1	0
71835	OXYGEN CONSUMED, FILTERED MG/L	36	0	0	36	1	0
71840	OXYGEN CONSUMED, UNFILTERED MG/L	36	0	0	36	1	0
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	48	1	2	45	3	1
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	2	0	2	0	1	1
71885	IRON (UG/L AS FE)	45	1	0	44	2	0

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	24	0	24	0	1	0
71887	NITROGEN, TOTAL, AS NO3 - MG/L	143	0	123	20	2	0
71890	MERCURY, DISSOLVED (UG/L AS HG)	22	22	0	0	12	6
71900	MERCURY, TOTAL (UG/L AS HG)	581	167	222	192	53	7
71918	ARSENIC, TOTAL IN FISH, DRY WEIGHT BASIS	71	0	9	62	6	0
71921	MERCURY, TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	54	29	25	0	29	11
71930	MERCURY, TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	75	3	9	63	7	0
71935	MERCURY, TOTAL IN FISH (PPM, WET WEIGHT BASIS)	15	3	12	0	1	0
71936	LEAD, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	102	6	33	63	9	0
71937	COPPER, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	99	6	30	63	9	0
71938	ZINC, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	90	6	21	63	7	0
71939	CHROMIUM, TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	87	3	21	63	8	0
71940	CADMUM, TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	102	6	33	63	9	0
72008	DEPTH, TOTAL OF WELL (FT BELOW LAND SURFACE DATUM)	1	0	1	0	1	1
72020	ELEVATION IN FEET ABOVE MEAN SEA LEVEL	1	1	0	0	1	0
73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	4	4	0	0	4	4
73540	CARBMOHACID,(1METHETH),S-(2,3DICL2PROP)ESTOTWUG/L	4	4	0	0	4	4
73559	BENZOÀÉANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	4	4	0	0	4	4
73570	2-PROPOENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	4	4	0	0	4	4
73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	4	4	0	0	4	4
73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	4	4	0	0	4	4
73582	1,3-HBENZODIOXOLE, 5-(1-PROPYNYL)- TOTWUG/L	4	4	0	0	4	4
73589	1,2-ETHDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	4	4	0	0	4	4
73591	BENZÒJÉACEANTHYLENE, 1,2-DIHYDRO-3-METHYLTTOTWUG/L	4	4	0	0	4	4
73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	4	4	0	0	4	4
73599	1,4-NAPHTHALENEDIONE TOTWUG/L	4	4	0	0	4	4
73600	1-NAPHTHALENAMINE TOTWUG/L	4	4	0	0	4	4
73605	BENZENAMINE, 4-NITRO- TOTWUG/L	4	4	0	0	4	4
73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	4	4	0	0	4	4
73619	1-NITROSPIPERIDINE TOTWUG/L	4	4	0	0	4	4
73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	4	4	0	0	4	4
73628	1,4-BENZENEDIAMINE TOTWUG/L	4	4	0	0	4	4
73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	4	4	0	0	4	4
75042	HEXAChlorOBENZENE SEDIMENT,DRY,WT,UG/KG	7	7	0	0	6	6
75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	7	7	0	0	6	6
75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	14	14	0	0	12	0
75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	7	7	0	0	6	6
75714	DIBENZO(B,D)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	7	7	0	0	6	6
76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	4	4	0	0	4	4
77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	4	4	0	0	4	4
77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	4	4	0	0	4	4
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	4	4	0	0	4	4
77103	2-HEXANONE WHOLE WATER,UG/L	4	4	0	0	4	4
77128	STYRENE WHOLE WATER,UG/L	4	4	0	0	4	4
77142	O-TOLUIDINE WHOLE WATER,UG/L	4	4	0	0	4	4
77146	P-CRESOL WHOLE WATER,UG/L	4	4	0	0	4	4
77151	M-CRESOL WHOLE WATER,UG/L	4	4	0	0	4	4
77152	O-CRESOL WHOLE WATER,UG/L	4	4	0	0	4	4
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	4	4	0	0	4	4
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	4	4	0	0	4	4
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	4	4	0	0	4	4
77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	4	4	0	0	4	4
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	4	4	0	0	4	4
77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	4	4	0	0	4	4
77424	IODOMETHANE WHOLE WATER,UG/L	4	4	0	0	4	4
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	4	4	0	0	4	4
77545	SAFROLE WHOLE WATER,UG/L	4	4	0	0	4	4
77562	1,1,1,2-TETRAChLOROETHANE WHOLE WATER,UG/L	4	4	0	0	4	4
77579	DIPHENYLAMINE WHOLE WATER,UG/L	4	4	0	0	4	4
77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	4	4	0	0	4	4
77596	METHYLENE BROMIDE WHOLE WATER,UG/L	4	4	0	0	4	4
77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	4	4	0	0	4	4
77734	1,2,4,5-TETRAChLOROBENZENE WHOLE WATER,UG/L	4	4	0	0	4	4
77770	2,3,4,6-TETRAChLOROPHENOL WHOLE WATER,UG/L	4	4	0	0	4	4
77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	4	4	0	0	4	4
77825	ALACHLOR WHOLE WATER,UG/L	10	10	0	0	10	0
78109	ALLYLCHLORIDE, TOTAL, WHOLE WATER SAMPLE UG/L	4	4	0	0	4	4
78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	4	4	0	0	4	4
78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	4	4	0	0	4	4
78206	N-NITROSOPIRROLIDINE IN WHOLE WATER UG/L	4	4	0	0	4	4
78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	4	4	0	0	4	4

**Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Parameter Code	Name	Total Obs	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Park
78300	3-NITROANILINE, TOTAL, IN WATER UG/L	4	4	0	0	4	4
78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	7	7	0	0	6	6
78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	7	7	0	0	6	6
79178	PCB-1242 TISDRYWTMG/KG	11	0	3	8	1	0
79179	PCB-1254 TISDRYWTMG/KG	37	3	12	22	1	0
79182	PCB-1248 TISDRYWTMG/KG	15	3	12	0	1	0
79183	PCB-1260 TISDRYWTMG/KG	23	3	12	8	1	0
79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY,WT,UG/KG	7	7	0	0	6	6
79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY,WT,UG/KG	7	7	0	0	6	6
79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	7	7	0	0	6	6
79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	7	7	0	0	6	6
79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	13	13	0	0	11	0
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	223	93	114	16	10	1
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	129	0	113	16	2	0
81024	DRAINAGE AREA IN SQUARE MILES (SQ. MI.)	1	1	0	0	1	0
81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	4	4	0	0	4	4
81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	4	4	0	0	4	4
81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	4	4	0	0	4	4
81312	POLYCHLORINATEDBIPHENYLS FISH TISSUE WET WGT MG/KG	3	3	0	0	1	0
81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	9	9	0	0	6	6
81520	CHLOROPRENE WHL WATER SMPL UG/L	4	4	0	0	4	4
81551	XYLENE WHL WATER SMPL UG/L	4	4	0	0	4	4
81552	ACETONE WHL WATER SMPL UG/L	4	4	0	0	4	4
81553	ACETOPHENONE WHL WATER SMPL UG/L	4	4	0	0	4	4
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	4	4	0	0	4	4
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	4	4	0	0	4	4
81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	4	4	0	0	4	4
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	4	4	0	0	4	4
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	216	3	150	63	10	0
81644	METHOXYCHLOR IN FISH TISSUE,UG/G WET WEIGHT	2	2	0	0	1	0
81645	MIREX IN FISH TISSUE WET WEIGHT UG/G	11	5	6	0	2	0
81665	VANADIUM IN FISH TISSUE WET WEIGHT MG/KG	12	0	12	0	2	0
81742	SILVER IN FISH TISSUE WET WEIGHT (MG/KG)PPM	3	3	0	0	1	0
81823	PENTACHLOROANISOLE(PCA)INFISH TISSUE WET WGT MG/KG	11	5	6	0	2	0
81888	DISULFOTON IN WHOLE WATER SAMPLE UG/L	4	4	0	0	4	4
81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	49	5	22	22	4	0
81897	DDD TOTAL IN TISSUE WET WEIGHT MG/KG	2	2	0	0	1	0
81944	DDT(INCLUDES DDE & DDD) IN TISSUE WET WEIGHT MG/KG	3	3	0	0	1	0
81987	TOTAL SEDIMENT PARTICLE SIZE %COARSER THAN 9.00PHI	37	3	12	22	1	0
82004	DACTHAL IN TISSUE SAMPLE WET WEIGHT MG/KG	12	3	9	0	1	0
82007	PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	5	5	0	0	4	0
82008	SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	5	5	0	0	4	0
82009	SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	5	5	0	0	4	0
82029	OXYCHLORDANE IN TISSUE SAMPLE WET WEIGHT MG/KG	14	5	9	0	2	0
82032	CALCIUM - TOTAL UG/L (AS CA)	11	11	0	0	5	0
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	41	41	0	0	4	0
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	1	1	0	0	1	0
82191	2-NAPHTHYLAMINE IN WATER UG/L	4	4	0	0	4	4
82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	4	4	0	0	4	4
82213	DIMETHYL BENZIDINE IN WATER UG/L	4	4	0	0	4	4
82398	SAMPLING METHOD (CODES)	1	0	1	0	1	0
83509	STREAM, WIDTH METER	1	1	0	0	1	0
84000	GEOLOGIC AGE CODE (SEE USGS CATALOG)	2	0	2	0	1	1
84001	AQUIFER NAME CODE (SEE USGS CATALOG)	2	0	2	0	1	1
84007	ANATOMY ALPHA CODE	216	3	150	63	10	0
84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	213	0	150	63	9	0

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0102	No	00001	X-SEC. LOC., HORIZ (FT. FROM R BANK LOOK UPSTR.)	05/18/82-05/18/82	0	1	
RICH0001	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	10/26/73-11/25/74	1	11	
RICH0002	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/02/72-03/24/78	5	38	
RICH0003	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	04/19/73-03/14/78	4	54	
RICH0005	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	04/19/73-06/19/90	17	179	
RICH0006	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/29/74-03/14/78	3	41	
RICH0008	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/10/74-05/15/78	3	33	
RICH0010	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	04/19/73-09/19/73	0	4	
RICH0011	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/26/74-12/15/98	24	126	
RICH0015	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/22/68-10/26/98	30	88	
RICH0017	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/14/94-10/26/98	4	46	
RICH0019	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	06/28/68-06/20/90	21	219	
RICH0020	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/14/94-10/26/98	4	46	
RICH0021	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/14/94-10/26/98	4	46	
RICH0023	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/22/68-06/28/83	14	70	
RICH0026	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/14/94-10/26/98	4	46	
RICH0028	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	04/18/73-01/10/74	0	9	
RICH0029	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	04/18/73-05/17/78	5	54	
RICH0032	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/22/68-12/15/98	30	229	
RICH0034	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/14/94-10/26/98	4	46	
RICH0035	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/31/72-07/08/74	1	11	
RICH0036	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	10/02/74-06/20/90	15	153	
RICH0059	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	06/28/94-10/26/98	4	46	
RICH0060	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/01/75-06/28/83	8	25	
RICH0061	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	01/17/90-11/19/98	8	38	
RICH0064	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	06/28/94-10/26/98	4	46	
RICH0065	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	06/28/68-12/07/98	30	266	
RICH0066	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/26/72-05/17/78	5	56	
RICH0067	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	03/30/73-06/20/90	17	174	
RICH0069	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/22/68-12/15/98	30	175	
RICH0077	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	06/28/94-10/26/98	4	46	
RICH0079	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	03/30/73-05/17/78	5	56	
RICH0080	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/26/72-05/17/78	5	57	
RICH0081	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	03/30/73-05/12/78	5	57	
RICH0085	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/29/96-12/14/98	2	30	
RICH0089	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/08/68-06/28/83	14	68	
RICH0091	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	08/06/97-12/07/98	1	9	
RICH0093	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	06/28/94-10/26/98	4	46	
RICH0094	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	02/03/69-12/07/98	29	236	
RICH0096	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/20/67-05/10/78	10	102	
RICH0101	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/26/72-06/20/90	17	176	
RICH0102	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/27/74-02/21/89	14	138	
RICH0103	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/26/72-07/21/74	1	16	
RICH0104	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/20/94-11/23/98	4	19	
RICH0105	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/22/68-10/26/98	30	111	
RICH0107	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/06/96-10/26/98	2	25	
RICH0108	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/28/94-10/26/98	4	45	
RICH0110	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/28/94-10/26/98	4	44	
RICH0112	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/06/96-10/26/98	2	25	
RICH0114	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/06/96-10/26/98	2	24	
RICH0115	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/28/94-10/26/98	4	46	
RICH0116	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	02/18/68-12/15/98	30	347	
RICH0118	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/28/94-10/26/98	4	44	
RICH0119	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/28/94-10/26/98	4	44	
RICH0120	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	06/18/68-04/25/78	9	88	
RICH0124	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/06/96-10/26/98	2	24	
RICH0125	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/28/94-10/26/98	4	44	
RICH0126	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	07/28/94-10/26/98	4	43	
RICH0127	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	05/06/96-10/26/98	2	25	
RICH0130	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/20/67-12/14/98	31	154	
RICH0134	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/20/67-12/14/98	31	255	
RICH0143	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	09/20/67-05/10/78	10	98	
RICH0146	No	00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	02/10/75-12/07/98	23	218	
RICH0001	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	10/26/73-11/25/74	1	11	
RICH0002	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	05/02/72-03/24/78	5	38	
RICH0003	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	04/19/73-03/14/78	4	54	
RICH0005	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	04/19/73-03/14/78	4	55	
RICH0006	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	05/29/74-03/14/78	3	41	
RICH0008	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/10/74-05/15/78	3	33	
RICH0010	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	04/19/73-09/19/73	0	4	
RICH0011	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	05/26/74-05/22/78	3	21	
RICH0015	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	07/22/68-08/30/74	6	41	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0019	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	06/28/68-05/17/78	9	99	
RICH0023	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	07/22/68-05/22/78	9	59	
RICH0028	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	04/18/73-01/10/74	0	9	
RICH0029	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	04/18/73-05/17/78	5	54	
RICH0032	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	07/22/68-05/22/78	9	50	
RICH0035	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	07/31/72-07/08/74	1	11	
RICH0036	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	10/02/74-05/17/78	3	35	
RICH0060	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	05/01/75-05/22/78	3	14	
RICH0065	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	06/28/68-05/17/78	9	101	
RICH0066	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/26/72-05/17/78	5	56	
RICH0067	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	03/30/73-05/17/78	5	55	
RICH0069	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	07/22/68-05/22/78	9	56	
RICH0079	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	03/30/73-05/17/78	5	56	
RICH0080	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/26/72-05/17/78	5	57	
RICH0081	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	03/30/73-05/12/78	5	57	
RICH0089	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	07/08/68-05/22/78	9	57	
RICH0094	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	02/03/69-04/25/78	9	61	
RICH0096	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/20/67-05/10/78	10	102	
RICH0101	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/26/72-04/25/78	5	57	
RICH0102	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	05/27/74-04/25/78	3	41	
RICH0103	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/26/72-07/21/74	1	16	
RICH0105	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	07/22/68-05/22/78	9	56	
RICH0116	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	02/18/68-04/25/78	10	103	
RICH0120	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	06/18/68-04/25/78	9	88	
RICH0130	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/20/67-05/10/78	10	103	
RICH0134	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/20/67-05/10/78	10	101	
RICH0143	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	09/20/67-05/10/78	10	98	
RICH0146	No	00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)	02/10/75-05/10/78	3	36	
RICH0001	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/26/73-11/25/74	1	11	
RICH0002	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/02/72-03/24/78	5	33	
RICH0003	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/22/79	6	63	
RICH0005	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	17	184	
RICH0006	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	5	51	
RICH0008	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/74-06/12/79	4	42	
RICH0010	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-09/19/73	0	4	
RICH0011	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	24	148	
RICH0014	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/19/64-08/11/71	6	419	
RICH0015	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	30	91	
RICH0017	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	4	51	
RICH0018	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/27/68-11/04/71	3	21	
RICH0019	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	21	221	
RICH0020	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	4	51	
RICH0021	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	4	51	
RICH0023	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/02/83	15	2010	
RICH0025	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/92-06/04/97	5	3	
RICH0026	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	4	51	
RICH0027	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	4	122	
RICH0028	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-01/10/74	0	7	
RICH0029	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	6	61	
RICH0030	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	0	1	
RICH0032	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	30	1332	
RICH0034	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	4	51	
RICH0035	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/31/72-07/08/74	1	9	
RICH0036	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	15	161	
RICH0037	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	0	1	
RICH0038	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-06/04/97	2	2	
RICH0040	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	0	1	
RICH0044	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	0	1	
RICH0046	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-06/04/97	2	2	
RICH0047	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	0	1	
RICH0050	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/30/76-07/25/78	1	2	
RICH0051	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	0	1	
RICH0053	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	0	1	
RICH0054	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	0	1	
RICH0057	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-03/27/95	0	3	
RICH0058	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/15/89-06/15/89	0	1	
RICH0059	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	4	52	
RICH0060	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/01/75-09/27/83	8	34	
RICH0061	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/17/90-11/19/98	8	44	
RICH0063	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	0	1	
RICH0064	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	15	53	
RICH0065	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	30	274	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0066	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	6	65	
RICH0067	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	17	180	
RICH0068	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-12/07/94	0	1	
RICH0069	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	30	717	
RICH0070	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/04/71	3	20	
RICH0073	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/71-08/11/71	0	121	
RICH0074	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-06/04/97	2	3	
RICH0075	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-12/07/94	0	1	
RICH0076	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-12/07/94	0	1	
RICH0077	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	4	51	
RICH0078	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-06/04/97	2	3	
RICH0079	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	6	64	
RICH0080	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	6	64	
RICH0081	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	6	65	
RICH0082	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/09/69-05/09/69	0	1	
RICH0083	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/29/80-08/08/94	14	29	
RICH0084	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/04/91	6	11	
RICH0085	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/19/94-12/14/98	4	34	
RICH0086	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-06/04/97	2	3	
RICH0087	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-03/27/95	0	2	
RICH0088	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/16/80-08/01/83	3	5	
RICH0089	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/08/68-09/20/83	15	75	
RICH0091	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/06/97-12/07/98	1	9	
RICH0092	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/04/71	3	22	
RICH0093	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	4	51	
RICH0094	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	29	246	
RICH0095	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/11/84	0	1	
RICH0096	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	27	116	
RICH0099	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/10/83-09/27/87	4	110	
RICH0100	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/15/85-09/12/89	4	9	
RICH0101	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	17	184	
RICH0102	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	14	144	
RICH0103	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-07/21/74	1	16	
RICH0104	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/20/94-11/23/98	4	20	
RICH0105	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	30	121	
RICH0106	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	4	135	
RICH0107	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	3	37	
RICH0108	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	4	56	
RICH0110	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	4	55	
RICH0112	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	3	37	
RICH0113	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/28/83-09/27/83	0	3	
RICH0114	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	3	36	
RICH0115	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	4	56	
RICH0116	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	30	2527	
RICH0118	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-09/16/96	2	23	
RICH0119	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	4	55	
RICH0120	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	10	97	
RICH0121	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/24/79-09/03/81	1	24	
RICH0122	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/05/69-11/04/71	2	5	
RICH0124	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	3	36	
RICH0125	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	4	56	
RICH0126	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	4	54	
RICH0127	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	3	37	
RICH0128	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/09/83-09/27/87	4	111	
RICH0130	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	31	165	
RICH0131	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/04/91	6	33	
RICH0132	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-04/07/90	5	13	
RICH0133	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/19/94-10/19/94	0	4	
RICH0134	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	31	263	
RICH0135	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/16/85-08/16/85	0	1	
RICH0136	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-09/12/89	5	10	
RICH0140	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/19/94-10/19/94	0	2	
RICH0142	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-08/16/85	0	4	
RICH0143	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	11	108	
RICH0144	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-09/12/89	5	10	
RICH0145	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/08/87-09/04/91	4	20	
RICH0146	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	23	231	
RICH0147	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/31/89-09/04/91	1	19	
RICH0148	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-08/16/85	0	5	
RICH0149	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/03/86-04/03/86	0	1	
RICH0014	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/19/64-08/19/64	0	2	
RICH0084	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/04/91	6	8	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0088	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/16/80-08/01/83	3	5	
RICH0095	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/11/84	0	1	
RICH0099	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/10/83-09/27/87	4	110	
RICH0100	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	04/08/87-09/12/89	2	5	
RICH0106	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	4	137	
RICH0128	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/09/83-09/27/87	4	111	
RICH0131	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/04/91	6	32	
RICH0132	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-04/07/90	5	11	
RICH0135	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/16/85-08/16/85	0	1	
RICH0136	Yes	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-09/12/89	5	8	
RICH0142	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-08/16/85	0	4	
RICH0144	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-09/12/89	5	8	
RICH0145	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	04/12/88-09/04/91	3	21	
RICH0147	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/31/89-09/04/91	1	19	
RICH0148	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-08/16/85	0	5	
RICH0023	No	00023	SAMPLE WEIGHT IN POUNDS	10/26/79-10/26/79	0	3	
RICH0097	No	00023	SAMPLE WEIGHT IN POUNDS	05/23/75-08/27/75	0	11	
RICH0109	No	00023	SAMPLE WEIGHT IN POUNDS	05/08/75-05/08/75	0	1	
RICH0129	No	00023	SAMPLE WEIGHT IN POUNDS	10/01/70-10/01/84	14	34	
RICH0023	No	00024	SAMPLE LENGTH IN INCHES	10/26/79-10/26/79	0	3	
RICH0097	No	00024	SAMPLE LENGTH IN INCHES	05/23/75-08/27/75	0	11	
RICH0109	No	00024	SAMPLE LENGTH IN INCHES	05/08/75-05/08/75	0	1	
RICH0129	No	00024	SAMPLE LENGTH IN INCHES	10/01/70-10/01/84	14	34	
RICH0084	No	00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/04/91	4	7	
RICH0100	No	00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/12/89	2	6	
RICH0131	No	00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/04/91	4	32	
RICH0132	No	00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-04/07/90	2	8	
RICH0136	Yes	00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/12/89	2	6	
RICH0144	No	00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/12/89	2	6	
RICH0145	No	00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/04/91	4	23	
RICH0147	No	00025	BAROMETRIC PRESSURE (MM OF HG)	10/31/89-09/04/91	1	21	
RICH0027	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	01/13/75-01/13/75	0	1	
RICH0084	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	09/11/84-09/04/91	6	8	
RICH0099	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	10/17/83-10/17/83	0	1	
RICH0100	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	04/08/87-09/12/89	2	6	
RICH0106	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	03/24/83-10/17/83	0	2	
RICH0131	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	09/11/84-09/04/91	6	33	
RICH0132	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	04/08/87-04/07/90	2	8	
RICH0136	Yes	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	09/10/84-09/12/89	5	7	
RICH0142	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	09/10/84-09/10/84	0	1	
RICH0144	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	09/10/84-09/12/89	5	7	
RICH0145	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	04/08/87-09/04/91	4	28	
RICH0147	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	10/31/89-09/04/91	1	25	
RICH0027	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	01/13/75-02/27/79	4	16	
RICH0050	Yes	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	07/25/78-07/25/78	0	1	
RICH0084	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	09/11/84-09/04/91	6	8	
RICH0099	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	10/17/83-10/17/83	0	1	
RICH0100	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	04/08/87-09/12/89	2	6	
RICH0106	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	03/24/83-10/17/83	0	2	
RICH0121	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	10/24/79-09/03/81	1	24	
RICH0131	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	09/11/84-09/04/91	6	33	
RICH0132	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	04/08/87-04/07/90	2	8	
RICH0136	Yes	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	09/10/84-09/12/89	5	7	
RICH0142	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	09/10/84-09/10/84	0	1	
RICH0144	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	09/10/84-09/12/89	5	7	
RICH0145	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	04/08/87-09/04/91	4	28	
RICH0147	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	10/31/89-09/04/91	1	25	
RICH0001	No	00041	WEATHER (WMO CODE 4501)	10/26/73-11/25/74	1	11	
RICH0002	No	00041	WEATHER (WMO CODE 4501)	05/02/72-03/24/78	5	36	
RICH0003	No	00041	WEATHER (WMO CODE 4501)	04/19/73-06/22/79	6	64	
RICH0005	No	00041	WEATHER (WMO CODE 4501)	04/19/73-06/19/90	17	187	
RICH0006	No	00041	WEATHER (WMO CODE 4501)	05/29/74-06/22/79	5	50	
RICH0008	No	00041	WEATHER (WMO CODE 4501)	09/10/74-06/12/79	4	42	
RICH0010	No	00041	WEATHER (WMO CODE 4501)	04/19/73-09/19/73	0	4	
RICH0011	No	00041	WEATHER (WMO CODE 4501)	05/26/74-12/15/98	24	139	
RICH0015	No	00041	WEATHER (WMO CODE 4501)	07/22/68-10/26/98	30	87	
RICH0017	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	47	
RICH0019	No	00041	WEATHER (WMO CODE 4501)	06/28/68-06/20/90	21	218	
RICH0020	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	47	
RICH0021	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	47	
RICH0023	No	00041	WEATHER (WMO CODE 4501)	07/22/68-06/28/83	14	75	
RICH0026	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	47	

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**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0027	No	00041	WEATHER (WMO CODE 4501)	03/12/74-02/27/79	4	120	
RICH0028	No	00041	WEATHER (WMO CODE 4501)	04/18/73-01/10/74	0	9	
RICH0029	No	00041	WEATHER (WMO CODE 4501)	05/29/73-06/21/79	6	61	
RICH0032	No	00041	WEATHER (WMO CODE 4501)	07/22/68-12/15/98	30	543	
RICH0034	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	47	
RICH0035	No	00041	WEATHER (WMO CODE 4501)	07/31/72-07/08/74	1	11	
RICH0036	No	00041	WEATHER (WMO CODE 4501)	10/02/74-06/20/90	15	159	
RICH0059	No	00041	WEATHER (WMO CODE 4501)	06/28/94-10/26/98	4	48	
RICH0060	No	00041	WEATHER (WMO CODE 4501)	05/01/75-06/28/83	8	32	
RICH0061	No	00041	WEATHER (WMO CODE 4501)	01/17/90-11/19/98	8	40	
RICH0064	No	00041	WEATHER (WMO CODE 4501)	06/28/94-10/26/98	4	48	
RICH0065	No	00041	WEATHER (WMO CODE 4501)	06/28/68-12/07/98	30	272	
RICH0066	No	00041	WEATHER (WMO CODE 4501)	09/26/72-06/21/79	6	66	
RICH0067	No	00041	WEATHER (WMO CODE 4501)	03/30/73-06/20/90	17	176	
RICH0069	No	00041	WEATHER (WMO CODE 4501)	07/22/68-12/15/98	30	217	
RICH0077	No	00041	WEATHER (WMO CODE 4501)	06/28/94-10/26/98	4	48	
RICH0079	No	00041	WEATHER (WMO CODE 4501)	03/30/73-06/21/79	6	65	
RICH0080	No	00041	WEATHER (WMO CODE 4501)	09/26/72-06/21/79	6	64	
RICH0081	No	00041	WEATHER (WMO CODE 4501)	03/30/73-06/21/79	6	65	
RICH0085	No	00041	WEATHER (WMO CODE 4501)	05/29/96-12/14/98	2	32	
RICH0089	No	00041	WEATHER (WMO CODE 4501)	07/08/68-06/28/83	14	75	
RICH0091	No	00041	WEATHER (WMO CODE 4501)	08/06/97-12/07/98	1	9	
RICH0093	No	00041	WEATHER (WMO CODE 4501)	06/28/94-10/26/98	4	48	
RICH0094	No	00041	WEATHER (WMO CODE 4501)	02/03/69-12/07/98	29	241	
RICH0096	No	00041	WEATHER (WMO CODE 4501)	06/18/68-04/24/79	10	110	
RICH0101	No	00041	WEATHER (WMO CODE 4501)	09/26/72-06/20/90	17	183	
RICH0102	No	00041	WEATHER (WMO CODE 4501)	05/27/74-11/29/88	14	144	
RICH0103	No	00041	WEATHER (WMO CODE 4501)	09/26/72-07/21/74	1	16	
RICH0104	No	00041	WEATHER (WMO CODE 4501)	07/20/94-11/23/98	4	19	
RICH0105	No	00041	WEATHER (WMO CODE 4501)	07/22/68-10/26/98	30	122	
RICH0107	No	00041	WEATHER (WMO CODE 4501)	05/06/96-10/26/98	2	32	
RICH0108	No	00041	WEATHER (WMO CODE 4501)	07/28/94-10/26/98	4	48	
RICH0110	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	48	
RICH0112	No	00041	WEATHER (WMO CODE 4501)	05/06/96-10/26/98	2	32	
RICH0114	No	00041	WEATHER (WMO CODE 4501)	05/06/96-10/26/98	2	31	
RICH0115	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	49	
RICH0116	No	00041	WEATHER (WMO CODE 4501)	02/18/68-12/15/98	30	516	
RICH0118	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	46	
RICH0119	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	48	
RICH0120	No	00041	WEATHER (WMO CODE 4501)	06/18/68-06/07/79	10	99	
RICH0121	No	00041	WEATHER (WMO CODE 4501)	10/24/79-09/03/81	1	23	
RICH0124	No	00041	WEATHER (WMO CODE 4501)	05/06/96-10/26/98	2	31	
RICH0125	No	00041	WEATHER (WMO CODE 4501)	07/28/94-10/26/98	4	48	
RICH0126	No	00041	WEATHER (WMO CODE 4501)	07/14/94-10/26/98	4	48	
RICH0127	No	00041	WEATHER (WMO CODE 4501)	05/06/96-10/26/98	2	32	
RICH0130	No	00041	WEATHER (WMO CODE 4501)	10/12/67-12/14/98	31	165	
RICH0134	No	00041	WEATHER (WMO CODE 4501)	10/12/67-12/14/98	31	257	
RICH0143	No	00041	WEATHER (WMO CODE 4501)	10/12/67-06/14/79	11	108	
RICH0146	No	00041	WEATHER (WMO CODE 4501)	02/10/75-12/07/98	23	233	
RICH0099	No	00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/10/83-09/27/87	4	113	
RICH0106	No	00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	4	140	
RICH0128	No	00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/09/83-09/27/87	4	114	
RICH0027	No	00060	FLOW, STREAM, MEAN DAILY CFS	03/12/74-09/22/76	2	68	
RICH0082	No	00060	FLOW, STREAM, MEAN DAILY CFS	07/30/45-05/09/69	23	45	
RICH0005	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/05/83-04/09/85	2	13	
RICH0019	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/21/82-03/28/85	2	13	
RICH0027	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	08/13/75-02/27/79	3	57	
RICH0044	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/16/89-06/16/89	0	1	
RICH0047	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/16/89-06/16/89	0	1	
RICH0051	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/16/89-06/16/89	0	1	
RICH0053	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/16/89-06/16/89	0	1	
RICH0054	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/16/89-06/16/89	0	1	
RICH0058	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/15/89-06/15/89	0	1	
RICH0084	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/84-09/13/89	5	11	
RICH0088	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	07/16/80-08/01/83	3	5	
RICH0094	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/21/82-04/22/85	3	13	
RICH0100	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/15/85-09/12/89	4	9	
RICH0101	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/21/82-04/22/85	3	18	
RICH0106	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/24/83-03/24/83	0	1	
RICH0108	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/95-09/11/95	0	1	
RICH0110	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/95-09/11/95	0	1	
RICH0121	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	10/24/79-09/03/81	1	24	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0126	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	08/01/96-08/01/96	0	1	
RICH0131	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/84-09/04/91	6	31	
RICH0132	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-09/12/89	5	11	
RICH0135	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	08/16/85-08/16/85	0	1	
RICH0136	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-09/12/89	5	10	
RICH0142	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-08/16/85	0	4	
RICH0144	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-09/12/89	5	10	
RICH0145	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/08/87-09/04/91	4	27	
RICH0146	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	05/19/82-04/03/85	2	6	
RICH0147	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	10/31/89-09/04/91	1	23	
RICH0148	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-08/16/85	0	5	
RICH0067	No	00062	ELEVATION, RESERVOIR SURFACE WATER IN FEET	10/09/80-10/09/80	0	1	
RICH0149	No	00064	DEPTH OF STREAM, MEAN (FT)	04/03/86-04/03/86	0	1	
RICH0131	No	00065	STAGE, STREAM (FEET)	06/11/91-06/11/91	0	1	
RICH0145	No	00065	STAGE, STREAM (FEET)	06/11/91-06/11/91	0	1	
RICH0147	No	00065	STAGE, STREAM (FEET)	06/11/91-06/11/91	0	1	
RICH0002	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	05/31/72-03/24/78	5	19	
RICH0005	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	05/04/82-04/18/89	6	9	
RICH0011	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	06/07/74-12/15/98	24	134	
RICH0014	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	08/19/64-08/20/64	0	14	
RICH0015	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/22/68-10/26/98	30	80	
RICH0017	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/14/94-10/26/98	4	47	
RICH0019	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	10/24/88-06/26/89	0	6	
RICH0020	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/14/94-10/26/98	4	47	
RICH0021	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/14/94-10/26/98	4	47	
RICH0023	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	09/08/68-09/27/83	15	61	
RICH0026	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/14/94-10/26/98	4	47	
RICH0032	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	09/08/68-12/15/98	30	530	
RICH0034	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/14/94-10/26/98	4	47	
RICH0035	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/31/72-07/08/74	1	8	
RICH0036	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	10/24/88-06/26/89	0	7	
RICH0059	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	06/28/94-10/26/98	4	48	
RICH0060	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	05/01/75-09/27/83	8	30	
RICH0064	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	09/20/83-10/26/98	15	50	
RICH0065	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	10/24/88-06/26/89	0	7	
RICH0067	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	10/24/88-06/26/89	0	7	
RICH0069	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	09/08/68-12/15/98	30	205	
RICH0073	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	08/20/64-08/20/64	0	11	
RICH0077	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	06/28/94-10/26/98	4	47	
RICH0089	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/08/68-09/20/83	15	62	
RICH0093	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	06/28/94-10/26/98	4	48	
RICH0094	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	10/24/88-06/26/89	0	7	
RICH0101	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	10/24/88-05/24/89	0	6	
RICH0102	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	10/24/88-11/29/88	0	2	
RICH0105	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	09/08/68-10/26/98	30	100	
RICH0113	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	07/28/83-09/27/83	0	3	
RICH0115	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	08/17/94-10/26/98	4	33	
RICH0116	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	06/27/74-10/26/98	24	139	
RICH0119	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	08/17/94-10/26/98	4	10	
RICH0134	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	05/04/88-05/10/89	1	8	
RICH0146	No	00067	TIDE STAGE (REFER TO APPENDIX FOR CODES)	03/28/88-05/16/89	1	6	
RICH0005	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	11/09/88-06/19/90	1	18	
RICH0011	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	06/04/75-07/07/94	19	20	
RICH0018	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/11/71-07/23/71	0	4	
RICH0019	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-06/20/90	19	22	
RICH0023	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	07/28/75-07/16/80	4	2	
RICH0027	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	4	119	
RICH0032	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-10/05/93	22	21	
RICH0036	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-06/20/90	1	17	
RICH0050	Yes	00070	TURBIDITY, (JACKSON CANDLE UNITS)	11/30/76-07/25/78	1	2	
RICH0060	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	07/28/75-07/28/75	0	1	
RICH0061	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	07/19/90-01/02/92	1	6	
RICH0065	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-01/02/92	20	25	
RICH0067	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-06/20/90	1	17	
RICH0069	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-10/05/93	22	19	
RICH0083	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	08/14/89-08/14/89	0	1	
RICH0089	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-07/16/80	9	4	
RICH0092	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	07/23/71-07/23/71	0	1	
RICH0094	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	5	56	
RICH0101	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-06/20/90	1	15	
RICH0102	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/21/89	0	1	
RICH0105	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-07/16/80	9	4	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0116	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	4	64	
RICH0120	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-07/08/71	0	4	
RICH0130	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-07/09/71	0	3	
RICH0134	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	11/21/88-06/10/91	2	22	
RICH0146	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	01/25/89-06/05/91	2	22	
RICH0011	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/07/94-12/15/98	4	54	
RICH0032	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	9	153	
RICH0059	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	0	11	
RICH0061	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	09/12/94-11/19/98	4	21	
RICH0064	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	0	11	
RICH0065	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/06/94-12/07/98	4	30	
RICH0069	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	9	140	
RICH0077	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	0	11	
RICH0085	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	05/29/96-12/14/98	2	32	
RICH0091	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	08/06/97-12/07/98	1	9	
RICH0093	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	0	11	
RICH0094	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	09/12/94-12/07/98	4	21	
RICH0104	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/20/94-11/23/98	4	20	
RICH0105	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	0	11	
RICH0108	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	0	14	
RICH0110	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	0	13	
RICH0115	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	0	14	
RICH0116	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	9	84	
RICH0118	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	0	12	
RICH0119	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	0	13	
RICH0125	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	0	14	
RICH0126	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	0	13	
RICH0130	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/19/94-12/14/98	4	54	
RICH0134	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/02/97-12/14/98	1	18	
RICH0146	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/11/94-12/07/98	4	54	
RICH0018	No	00077	TRANSPARENCY, SECCHI DISC (INCHES)	10/19/71-11/04/71	0	4	
RICH0070	No	00077	TRANSPARENCY, SECCHI DISC (INCHES)	10/19/71-11/04/71	0	4	
RICH0073	No	00077	TRANSPARENCY, SECCHI DISC (INCHES)	08/20/64-08/20/64	0	2	
RICH0092	No	00077	TRANSPARENCY, SECCHI DISC (INCHES)	10/19/71-11/04/71	0	4	
RICH0011	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	0	10	
RICH0015	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-06/28/83	0	1	
RICH0023	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	0	9	
RICH0032	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	15	210	
RICH0060	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	0	9	
RICH0064	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	07/28/83-10/12/83	0	6	
RICH0069	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	16	145	
RICH0083	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	04/29/80-08/08/94	14	8	
RICH0089	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	0	7	
RICH0105	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-11/18/82	0	1	
RICH0113	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	07/28/83-10/12/83	0	7	
RICH0116	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	08/16/83-10/03/83	0	2	
RICH0050	Yes	00080	COLOR (PLATINUM-COBALT UNITS)	11/30/76-07/25/78	1	2	
RICH0061	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/24/91-10/26/92	1	6	
RICH0065	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/24/91-01/21/93	1	7	
RICH0082	No	00080	COLOR (PLATINUM-COBALT UNITS)	07/30/45-05/09/69	23	45	
RICH0084	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/04/91	4	7	
RICH0094	No	00080	COLOR (PLATINUM-COBALT UNITS)	02/13/91-05/05/94	3	21	
RICH0100	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	2	6	
RICH0116	No	00080	COLOR (PLATINUM-COBALT UNITS)	02/25/91-01/12/94	2	20	
RICH0131	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/04/91	4	29	
RICH0132	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	2	6	
RICH0134	No	00080	COLOR (PLATINUM-COBALT UNITS)	03/13/91-03/03/93	1	8	
RICH0136	Yes	00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	2	6	
RICH0144	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	2	6	
RICH0145	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/04/91	4	26	
RICH0146	No	00080	COLOR (PLATINUM-COBALT UNITS)	03/13/91-03/03/93	1	8	
RICH0147	No	00080	COLOR (PLATINUM-COBALT UNITS)	10/31/89-09/04/91	1	25	
RICH0149	No	00080	COLOR (PLATINUM-COBALT UNITS)	04/03/86-04/03/86	0	1	
RICH0019	No	00091	FLOW, MINIMUM OF FLOW RANGE CFS	05/18/82-05/18/82	0	1	
RICH0005	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	10	110	
RICH0011	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	18	110	
RICH0015	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/28/83-10/26/98	15	49	
RICH0017	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	47	
RICH0019	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	104	
RICH0020	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	48	
RICH0021	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	47	
RICH0023	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM 25C)	05/19/80-09/27/83	3	16	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0025	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/30/92-06/04/97	5	3	
RICH0026	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	47	
RICH0030	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	0	1	
RICH0032	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	18	1268	A
RICH0034	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	47	
RICH0036	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	104	
RICH0037	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	0	1	
RICH0038	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/09/94-06/04/97	2	2	
RICH0040	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	0	1	
RICH0046	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/09/94-06/04/97	2	2	
RICH0057	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/07/94-03/27/95	0	2	
RICH0059	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	48	
RICH0060	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-09/27/83	3	15	
RICH0061	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/30/92-11/19/98	6	23	
RICH0063	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	0	1	
RICH0064	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/20/83-10/26/98	15	49	
RICH0065	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	19	128	
RICH0067	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	106	
RICH0068	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/07/94-12/07/94	0	1	
RICH0069	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	18	657	
RICH0074	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/07/94-06/04/97	2	3	
RICH0075	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/07/94-12/07/94	0	1	
RICH0076	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/07/94-12/07/94	0	1	
RICH0077	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	47	
RICH0078	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/09/94-06/04/97	2	3	
RICH0083	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/29/80-08/14/89	9	9	
RICH0085	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/19/94-12/14/98	4	33	
RICH0086	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/07/94-06/04/97	2	3	
RICH0087	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	12/07/94-03/27/95	0	2	
RICH0089	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-09/20/83	3	14	
RICH0091	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/06/97-12/07/98	1	9	
RICH0093	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	4	47	
RICH0094	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	19	128	
RICH0096	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/19/94-10/19/94	0	1	
RICH0101	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	106	
RICH0102	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	9	93	
RICH0104	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/19/95-11/23/98	3	18	
RICH0105	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-10/26/98	18	58	
RICH0107	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	3	36	
RICH0108	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/30/94-10/26/98	4	48	
RICH0110	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	4	51	
RICH0112	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	3	36	
RICH0113	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/83-09/27/83	0	3	
RICH0114	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	3	35	
RICH0115	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	4	47	
RICH0116	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	19	362	A
RICH0118	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-09/16/96	2	18	
RICH0119	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	4	50	
RICH0124	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	3	35	
RICH0125	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	4	49	
RICH0126	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	4	49	
RICH0127	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	3	36	
RICH0130	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/18/94-12/14/98	4	46	
RICH0133	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/19/94-10/19/94	0	1	
RICH0134	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	19	120	
RICH0140	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/19/94-10/19/94	0	1	
RICH0146	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	19	148	
RICH0005	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/24/89-06/19/90	0	10	
RICH0011	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/07/94-12/15/98	4	54	
RICH0019	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	0	8	
RICH0027	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	4	121	
RICH0032	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	9	133	
RICH0036	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	0	8	
RICH0044	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	0	1	
RICH0047	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	0	1	
RICH0050	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/30/76-07/25/78	1	2	
RICH0051	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	0	1	
RICH0053	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	0	1	
RICH0054	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	0	1	
RICH0058	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/15/89-06/15/89	0	1	
RICH0059	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	0	11	
RICH0061	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM 25C)	07/19/90-11/19/98	8	35	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0064	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	0	11	
RICH0065	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/11/80-12/07/98	18	55	
RICH0067	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	0	8	
RICH0069	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	9	119	
RICH0077	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	0	11	
RICH0082	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/06/52-05/09/69	16	5	
RICH0083	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/08/94-08/08/94	0	1	
RICH0084	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/04/91	6	11	
RICH0085	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/29/96-12/14/98	2	32	
RICH0088	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/16/80-08/01/83	3	5	
RICH0091	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/06/97-12/07/98	1	9	
RICH0093	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	0	11	
RICH0094	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-12/07/98	9	63	
RICH0095	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/11/84	0	1	
RICH0099	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/10/83-09/27/87	4	114	
RICH0100	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/15/85-09/12/89	4	9	
RICH0101	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	0	7	
RICH0104	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/20/94-11/23/98	4	20	
RICH0105	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	0	11	
RICH0106	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	4	141	
RICH0108	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	0	14	
RICH0110	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	0	13	
RICH0115	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	0	14	
RICH0116	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	30	151	
RICH0118	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	0	12	
RICH0119	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	0	13	
RICH0121	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/24/79-09/03/81	1	24	
RICH0125	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	0	14	
RICH0126	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	0	13	
RICH0128	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/09/83-09/27/87	4	114	
RICH0130	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/94-12/14/98	4	54	
RICH0131	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/04/91	6	33	
RICH0132	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-04/07/90	5	13	
RICH0134	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/10/89-12/14/98	9	44	
RICH0135	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/16/85-08/16/85	0	1	
RICH0136	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-09/12/89	5	10	
RICH0142	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-08/16/85	0	4	
RICH0144	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-09/12/89	5	10	
RICH0145	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/08/87-09/04/91	4	28	
RICH0146	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	9	75	
RICH0147	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/31/89-09/04/91	1	25	
RICH0148	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/14/85-08/16/85	0	4	
RICH0149	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/03/86-04/03/86	0	1	
RICH0011	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	09/08/94-11/18/98	4	33	
RICH0015	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0017	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0020	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0021	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0026	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0032	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	14	1114	
RICH0034	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0059	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0064	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0069	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	10	579	
RICH0077	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0093	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0105	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0108	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0110	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0115	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0116	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	14	182	
RICH0118	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0119	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0125	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0126	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	0	1	
RICH0130	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	10/18/94-11/02/95	1	4	
RICH0146	No	00096	SALINITY AT 25 DEGREES C (MG/ML)	07/26/95-08/31/95	0	2	
RICH0011	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-12/15/98	4	102	
RICH0015	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	4	50	
RICH0017	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	4	50	
RICH0020	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	4	50	
RICH0021	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	4	50	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0025	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	04/30/92-06/04/97	5	3	
RICH0026	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	4	50	
RICH0030	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	0	1	
RICH0032	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	14	1245	A
RICH0034	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	4	50	
RICH0037	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	0	1	
RICH0038	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-06/04/97	2	2	
RICH0040	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	0	1	
RICH0044	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	0	1	
RICH0046	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-06/04/97	2	2	
RICH0047	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	0	1	
RICH0051	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	0	1	
RICH0053	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	0	1	
RICH0054	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	0	1	
RICH0057	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-03/27/95	0	3	
RICH0058	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/15/89-06/15/89	0	1	
RICH0059	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	4	51	
RICH0061	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-11/19/98	8	41	
RICH0063	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	0	1	
RICH0064	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	4	50	
RICH0065	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-12/07/98	8	45	
RICH0068	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-12/07/94	0	1	
RICH0069	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	10	640	
RICH0074	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-06/04/97	2	3	
RICH0075	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-12/07/94	0	1	
RICH0076	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-12/07/94	0	1	
RICH0077	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	4	50	
RICH0078	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-06/04/97	2	3	
RICH0083	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	08/14/89-08/08/94	4	8	
RICH0085	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	4	34	
RICH0086	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-06/04/97	2	3	
RICH0087	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-03/27/95	0	2	
RICH0091	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	08/06/97-12/07/98	1	9	
RICH0093	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	4	50	
RICH0094	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	02/10/92-12/07/98	6	33	
RICH0096	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-10/19/94	0	5	
RICH0104	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/20/94-11/23/98	4	20	
RICH0105	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	4	50	
RICH0107	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	3	37	
RICH0108	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	4	56	
RICH0110	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	4	55	
RICH0112	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	3	37	
RICH0114	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	3	36	
RICH0115	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	4	55	
RICH0116	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	14	280	
RICH0118	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-09/16/96	2	23	
RICH0119	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	4	55	
RICH0124	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	3	36	
RICH0125	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	4	56	
RICH0126	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	4	54	
RICH0127	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	3	37	
RICH0130	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	4	54	
RICH0133	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-10/19/94	0	4	
RICH0134	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/14/98	8	35	
RICH0140	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-10/19/94	0	2	
RICH0146	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	8	69	
RICH0149	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	04/03/86-04/03/86	0	1	
RICH0001	No	00300	OXYGEN, DISSOLVED MG/L	10/26/73-11/25/74	1	11	
RICH0002	No	00300	OXYGEN, DISSOLVED MG/L	05/02/72-03/24/78	5	36	
RICH0003	No	00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	6	63	
RICH0005	No	00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	17	184	
RICH0006	No	00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	5	53	
RICH0008	No	00300	OXYGEN, DISSOLVED MG/L	09/10/74-06/12/79	4	42	
RICH0010	No	00300	OXYGEN, DISSOLVED MG/L	04/19/73-09/19/73	0	4	
RICH0011	No	00300	OXYGEN, DISSOLVED MG/L	05/26/74-07/07/94	20	45	
RICH0014	No	00300	OXYGEN, DISSOLVED MG/L	06/18/71-08/11/71	0	373	
RICH0015	No	00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	14	42	
RICH0018	No	00300	OXYGEN, DISSOLVED MG/L	07/27/68-11/02/71	3	20	
RICH0019	No	00300	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	21	219	
RICH0023	No	00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/02/83	15	2013	
RICH0027	No	00300	OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	4	121	
RICH0028	No	00300	OXYGEN, DISSOLVED MG/L	04/18/73-01/10/74	0	8	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0029	No	00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	6	62	
RICH0032	No	00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	19	162	
RICH0035	No	00300	OXYGEN, DISSOLVED MG/L	07/31/72-07/08/74	1	11	
RICH0036	No	00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	15	159	
RICH0060	No	00300	OXYGEN, DISSOLVED MG/L	05/01/75-09/27/83	8	35	
RICH0061	No	00300	OXYGEN, DISSOLVED MG/L	07/19/90-07/17/91	0	5	
RICH0064	No	00300	OXYGEN, DISSOLVED MG/L	09/20/83-10/03/83	0	2	
RICH0065	No	00300	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	23	228	A
RICH0066	No	00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	6	66	
RICH0067	No	00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	17	179	A
RICH0069	No	00300	OXYGEN, DISSOLVED MG/L	07/22/68-09/27/83	15	77	
RICH0070	No	00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/04/71	3	20	
RICH0073	No	00300	OXYGEN, DISSOLVED MG/L	06/18/71-08/11/71	0	132	
RICH0079	No	00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	6	65	
RICH0080	No	00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	6	66	
RICH0081	No	00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	6	65	
RICH0083	No	00300	OXYGEN, DISSOLVED MG/L	04/29/80-08/14/89	9	23	
RICH0084	No	00300	OXYGEN, DISSOLVED MG/L	04/08/87-09/04/91	4	7	
RICH0089	No	00300	OXYGEN, DISSOLVED MG/L	07/08/68-09/20/83	15	77	
RICH0092	No	00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/04/71	3	22	
RICH0094	No	00300	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	29	216	T,A,S
RICH0096	No	00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	109	
RICH0100	No	00300	OXYGEN, DISSOLVED MG/L	04/08/87-04/05/89	1	5	
RICH0101	No	00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	17	184	
RICH0102	No	00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	14	142	
RICH0103	No	00300	OXYGEN, DISSOLVED MG/L	09/26/72-07/21/74	1	16	
RICH0105	No	00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	14	72	
RICH0113	No	00300	OXYGEN, DISSOLVED MG/L	07/28/83-09/27/83	0	3	
RICH0116	No	00300	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	25	2293	T,A,S
RICH0120	No	00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	10	98	
RICH0121	No	00300	OXYGEN, DISSOLVED MG/L	10/24/79-09/03/81	1	24	
RICH0122	No	00300	OXYGEN, DISSOLVED MG/L	05/05/69-11/04/71	2	5	
RICH0130	No	00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	110	
RICH0131	No	00300	OXYGEN, DISSOLVED MG/L	04/08/87-09/04/91	4	31	
RICH0132	No	00300	OXYGEN, DISSOLVED MG/L	04/08/87-04/07/90	2	7	
RICH0134	No	00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	22	231	A
RICH0136	Yes	00300	OXYGEN, DISSOLVED MG/L	04/08/87-04/05/89	1	5	
RICH0143	No	00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	107	
RICH0144	No	00300	OXYGEN, DISSOLVED MG/L	04/08/87-09/12/89	2	6	
RICH0145	No	00300	OXYGEN, DISSOLVED MG/L	04/08/87-09/04/91	4	20	
RICH0146	No	00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	16	165	
RICH0147	No	00300	OXYGEN, DISSOLVED MG/L	10/31/89-09/04/91	1	19	
RICH0001	No	00310	BOD, 5 DAY, 20 DEG C MG/L	10/26/73-11/25/74	1	11	
RICH0005	No	00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	10	119	
RICH0008	No	00310	BOD, 5 DAY, 20 DEG C MG/L	10/16/74-10/16/74	0	1	
RICH0011	No	00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	24	69	
RICH0015	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	14	15	
RICH0018	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-11/04/71	2	9	
RICH0019	No	00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	21	161	
RICH0023	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	14	29	
RICH0027	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	4	121	
RICH0029	No	00310	BOD, 5 DAY, 20 DEG C MG/L	05/17/74-05/17/74	0	1	
RICH0032	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	29	115	S
RICH0035	No	00310	BOD, 5 DAY, 20 DEG C MG/L	07/31/72-07/31/72	0	1	
RICH0036	No	00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	14	113	
RICH0059	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/28/94-06/01/95	0	12	
RICH0060	No	00310	BOD, 5 DAY, 20 DEG C MG/L	07/28/75-06/28/83	7	13	
RICH0061	No	00310	BOD, 5 DAY, 20 DEG C MG/L	07/19/90-11/19/98	8	34	
RICH0064	No	00310	BOD, 5 DAY, 20 DEG C MG/L	07/14/94-06/01/95	0	11	
RICH0065	No	00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	30	164	T,S
RICH0066	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/26/75-06/21/79	4	39	
RICH0067	No	00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	13	114	
RICH0069	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	29	98	S
RICH0070	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-11/04/71	2	11	
RICH0077	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/28/94-06/01/95	0	12	
RICH0080	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/29/76-07/26/76	0	2	
RICH0085	No	00310	BOD, 5 DAY, 20 DEG C MG/L	05/29/96-12/14/98	2	32	
RICH0089	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	14	25	
RICH0091	No	00310	BOD, 5 DAY, 20 DEG C MG/L	08/06/97-12/07/98	1	9	
RICH0092	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-11/04/71	2	11	
RICH0093	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/28/94-06/01/95	0	12	
RICH0094	No	00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	29	177	T,S

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0096	No	00310	BOD, 5 DAY, 20 DEG C MG/L	08/20/68-07/30/73	4	12	
RICH0101	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	17	113	
RICH0102	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	13	134	
RICH0103	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-10/19/73	0	2	
RICH0104	No	00310	BOD, 5 DAY, 20 DEG C MG/L	07/20/94-11/23/98	4	20	
RICH0105	No	00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/01/95	26	49	S
RICH0108	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	0	15	
RICH0110	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	0	14	
RICH0115	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	0	15	
RICH0116	No	00310	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	30	262	T,A,S
RICH0118	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	0	13	
RICH0119	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	0	14	
RICH0120	No	00310	BOD, 5 DAY, 20 DEG C MG/L	10/07/68-04/18/73	4	8	
RICH0122	No	00310	BOD, 5 DAY, 20 DEG C MG/L	05/05/69-11/04/71	2	5	
RICH0125	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	0	15	
RICH0126	No	00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	0	14	
RICH0130	No	00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	31	78	S
RICH0134	No	00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	31	168	T,S
RICH0143	No	00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-09/09/75	7	21	
RICH0146	No	00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	19	176	
RICH0027	No	00335	COD, .025N K2CR207 MG/L	03/12/74-02/12/75	0	12	
RICH0116	No	00335	COD, .025N K2CR207 MG/L	12/20/88-03/15/89	0	2	
RICH0005	No	00340	COD, .25N K2CR207 MG/L	08/14/79-06/19/90	10	119	
RICH0011	No	00340	COD, .25N K2CR207 MG/L	06/04/75-12/15/98	23	85	
RICH0015	No	00340	COD, .25N K2CR207 MG/L	06/28/83-06/28/83	0	1	
RICH0019	No	00340	COD, .25N K2CR207 MG/L	08/15/79-06/20/90	10	113	
RICH0023	No	00340	COD, .25N K2CR207 MG/L	05/19/80-06/28/83	3	13	
RICH0027	No	00340	COD, .25N K2CR207 MG/L	06/12/74-02/27/79	4	108	
RICH0032	No	00340	COD, .25N K2CR207 MG/L	05/19/80-12/15/98	18	98	
RICH0036	No	00340	COD, .25N K2CR207 MG/L	08/15/79-06/20/90	10	112	
RICH0060	No	00340	COD, .25N K2CR207 MG/L	05/19/80-06/28/83	3	12	
RICH0061	No	00340	COD, .25N K2CR207 MG/L	07/19/90-11/19/98	8	36	
RICH0065	No	00340	COD, .25N K2CR207 MG/L	08/15/79-12/07/98	19	158	
RICH0067	No	00340	COD, .25N K2CR207 MG/L	08/15/79-06/20/90	10	114	
RICH0069	No	00340	COD, .25N K2CR207 MG/L	05/19/80-12/15/98	18	81	
RICH0083	No	00340	COD, .25N K2CR207 MG/L	08/08/94-08/08/94	0	1	
RICH0085	No	00340	COD, .25N K2CR207 MG/L	05/29/96-12/14/98	2	32	
RICH0089	No	00340	COD, .25N K2CR207 MG/L	05/19/80-06/28/83	3	13	
RICH0091	No	00340	COD, .25N K2CR207 MG/L	08/06/97-12/07/98	1	9	
RICH0094	No	00340	COD, .25N K2CR207 MG/L	08/15/79-12/07/98	19	172	
RICH0101	No	00340	COD, .25N K2CR207 MG/L	08/15/79-06/20/90	10	113	
RICH0102	No	00340	COD, .25N K2CR207 MG/L	08/15/79-02/21/89	9	93	
RICH0104	No	00340	COD, .25N K2CR207 MG/L	07/20/94-11/23/98	4	20	
RICH0105	No	00340	COD, .25N K2CR207 MG/L	07/22/74-06/28/83	8	13	
RICH0116	No	00340	COD, .25N K2CR207 MG/L	08/15/79-12/15/98	19	217	
RICH0121	No	00340	COD, .25N K2CR207 MG/L	10/24/79-09/03/81	1	22	
RICH0130	No	00340	COD, .25N K2CR207 MG/L	07/19/94-12/14/98	4	54	
RICH0134	No	00340	COD, .25N K2CR207 MG/L	08/08/79-12/14/98	19	148	
RICH0146	No	00340	COD, .25N K2CR207 MG/L	08/08/79-12/07/98	19	181	
RICH0001	No	00400	PH (STANDARD UNITS)	10/26/73-11/25/74	1	10	
RICH0002	No	00400	PH (STANDARD UNITS)	05/02/72-03/24/78	5	36	
RICH0003	No	00400	PH (STANDARD UNITS)	04/19/73-06/22/79	6	61	
RICH0005	No	00400	PH (STANDARD UNITS)	04/19/73-06/19/90	17	182	
RICH0006	No	00400	PH (STANDARD UNITS)	05/29/74-06/22/79	5	49	
RICH0008	No	00400	PH (STANDARD UNITS)	09/10/74-06/12/79	4	40	
RICH0010	No	00400	PH (STANDARD UNITS)	04/19/73-09/19/73	0	4	
RICH0011	No	00400	PH (STANDARD UNITS)	05/26/74-12/15/98	24	149	
RICH0015	No	00400	PH (STANDARD UNITS)	07/22/68-10/26/98	30	93	
RICH0017	No	00400	PH (STANDARD UNITS)	07/14/94-10/26/98	4	51	
RICH0018	No	00400	PH (STANDARD UNITS)	07/27/68-11/02/71	3	19	
RICH0019	No	00400	PH (STANDARD UNITS)	06/28/68-06/20/90	21	222	A
RICH0020	No	00400	PH (STANDARD UNITS)	07/14/94-10/26/98	4	51	
RICH0021	No	00400	PH (STANDARD UNITS)	07/14/94-10/26/98	4	51	
RICH0023	No	00400	PH (STANDARD UNITS)	07/22/68-09/27/83	15	79	
RICH0025	No	00400	PH (STANDARD UNITS)	04/30/92-06/04/97	5	3	
RICH0026	No	00400	PH (STANDARD UNITS)	07/14/94-10/26/98	4	51	
RICH0027	No	00400	PH (STANDARD UNITS)	03/12/74-02/27/79	4	121	
RICH0028	No	00400	PH (STANDARD UNITS)	04/18/73-01/10/74	0	8	
RICH0029	No	00400	PH (STANDARD UNITS)	04/18/73-06/21/79	6	61	
RICH0030	No	00400	PH (STANDARD UNITS)	12/09/94-12/09/94	0	1	
RICH0032	No	00400	PH (STANDARD UNITS)	07/22/68-12/15/98	30	526	T,A,S
RICH0034	No	00400	PH (STANDARD UNITS)	07/14/94-10/26/98	4	51	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0035	No	00400	PH (STANDARD UNITS)	07/31/72-07/08/74	1	11	
RICH0036	No	00400	PH (STANDARD UNITS)	10/02/74-06/20/90	15	160	
RICH0037	No	00400	PH (STANDARD UNITS)	12/09/94-12/09/94	0	1	
RICH0038	No	00400	PH (STANDARD UNITS)	12/09/94-06/04/97	2	2	
RICH0040	No	00400	PH (STANDARD UNITS)	12/09/94-12/09/94	0	1	
RICH0046	No	00400	PH (STANDARD UNITS)	12/09/94-06/04/97	2	2	
RICH0050	Yes	00400	PH (STANDARD UNITS)	11/30/76-11/30/76	0	1	
RICH0057	No	00400	PH (STANDARD UNITS)	12/07/94-03/27/95	0	3	
RICH0059	No	00400	PH (STANDARD UNITS)	06/28/94-10/26/98	4	52	
RICH0060	No	00400	PH (STANDARD UNITS)	05/01/75-09/27/83	8	35	
RICH0061	No	00400	PH (STANDARD UNITS)	01/17/90-11/19/98	8	44	
RICH0063	No	00400	PH (STANDARD UNITS)	12/09/94-12/09/94	0	1	
RICH0064	No	00400	PH (STANDARD UNITS)	09/20/83-10/26/98	15	53	
RICH0065	No	00400	PH (STANDARD UNITS)	06/28/68-12/07/98	30	274	T,A,S
RICH0066	No	00400	PH (STANDARD UNITS)	09/26/72-06/21/79	6	65	
RICH0067	No	00400	PH (STANDARD UNITS)	03/30/73-06/20/90	17	178	A
RICH0068	No	00400	PH (STANDARD UNITS)	12/07/94-12/07/94	0	1	
RICH0069	No	00400	PH (STANDARD UNITS)	07/22/68-12/15/98	30	357	T,S
RICH0070	No	00400	PH (STANDARD UNITS)	07/22/68-11/02/71	3	18	
RICH0074	No	00400	PH (STANDARD UNITS)	12/07/94-06/04/97	2	3	
RICH0075	No	00400	PH (STANDARD UNITS)	12/07/94-12/07/94	0	1	
RICH0076	No	00400	PH (STANDARD UNITS)	12/07/94-12/07/94	0	1	
RICH0077	No	00400	PH (STANDARD UNITS)	06/28/94-10/26/98	4	51	
RICH0078	No	00400	PH (STANDARD UNITS)	12/09/94-06/04/97	2	3	
RICH0079	No	00400	PH (STANDARD UNITS)	03/30/73-06/21/79	6	64	
RICH0080	No	00400	PH (STANDARD UNITS)	09/26/72-06/21/79	6	64	
RICH0081	No	00400	PH (STANDARD UNITS)	03/30/73-06/21/79	6	65	
RICH0082	No	00400	PH (STANDARD UNITS)	07/30/45-05/09/69	23	44	
RICH0083	No	00400	PH (STANDARD UNITS)	04/29/80-08/08/94	14	19	
RICH0084	No	00400	PH (STANDARD UNITS)	04/08/87-09/04/91	4	7	
RICH0085	No	00400	PH (STANDARD UNITS)	07/19/94-12/14/98	4	34	
RICH0086	No	00400	PH (STANDARD UNITS)	12/07/94-06/04/97	2	3	
RICH0087	No	00400	PH (STANDARD UNITS)	12/07/94-03/27/95	0	2	
RICH0089	No	00400	PH (STANDARD UNITS)	07/08/68-09/20/83	15	77	
RICH0091	No	00400	PH (STANDARD UNITS)	08/06/97-12/07/98	1	9	
RICH0092	No	00400	PH (STANDARD UNITS)	07/22/68-11/02/71	3	19	
RICH0093	No	00400	PH (STANDARD UNITS)	06/28/94-10/26/98	4	51	
RICH0094	No	00400	PH (STANDARD UNITS)	02/03/69-12/07/98	29	241	T,A,S
RICH0096	No	00400	PH (STANDARD UNITS)	09/20/67-10/19/94	27	117	S
RICH0100	No	00400	PH (STANDARD UNITS)	04/08/87-09/12/89	2	6	
RICH0101	No	00400	PH (STANDARD UNITS)	09/26/72-06/20/90	17	184	
RICH0102	No	00400	PH (STANDARD UNITS)	05/27/74-11/29/88	14	143	
RICH0103	No	00400	PH (STANDARD UNITS)	09/26/72-07/21/74	1	16	
RICH0104	No	00400	PH (STANDARD UNITS)	07/20/94-11/23/98	4	20	
RICH0105	No	00400	PH (STANDARD UNITS)	07/22/68-10/26/98	30	123	S
RICH0107	No	00400	PH (STANDARD UNITS)	09/20/95-10/26/98	3	37	
RICH0108	No	00400	PH (STANDARD UNITS)	06/27/94-10/26/98	4	56	
RICH0110	No	00400	PH (STANDARD UNITS)	06/27/94-10/26/98	4	55	
RICH0112	No	00400	PH (STANDARD UNITS)	09/20/95-10/26/98	3	37	
RICH0113	No	00400	PH (STANDARD UNITS)	07/28/83-09/27/83	0	3	
RICH0114	No	00400	PH (STANDARD UNITS)	09/20/95-10/26/98	3	36	
RICH0115	No	00400	PH (STANDARD UNITS)	06/27/94-10/26/98	4	56	
RICH0116	No	00400	PH (STANDARD UNITS)	02/18/68-12/15/98	30	526	T,A,S
RICH0118	No	00400	PH (STANDARD UNITS)	06/27/94-06/11/96	1	21	
RICH0119	No	00400	PH (STANDARD UNITS)	06/27/94-10/26/98	4	55	
RICH0120	No	00400	PH (STANDARD UNITS)	06/18/68-06/07/79	10	97	
RICH0121	No	00400	PH (STANDARD UNITS)	10/24/79-09/03/81	1	24	
RICH0122	No	00400	PH (STANDARD UNITS)	05/05/69-11/02/71	2	3	
RICH0124	No	00400	PH (STANDARD UNITS)	09/20/95-10/26/98	3	36	
RICH0125	No	00400	PH (STANDARD UNITS)	06/27/94-10/26/98	4	56	
RICH0126	No	00400	PH (STANDARD UNITS)	06/27/94-10/26/98	4	55	
RICH0127	No	00400	PH (STANDARD UNITS)	09/20/95-10/26/98	3	37	
RICH0130	No	00400	PH (STANDARD UNITS)	09/20/67-12/14/98	31	162	T,S
RICH0131	No	00400	PH (STANDARD UNITS)	04/08/87-09/04/91	4	32	
RICH0132	No	00400	PH (STANDARD UNITS)	04/08/87-04/07/90	2	8	
RICH0133	No	00400	PH (STANDARD UNITS)	07/19/94-10/19/94	0	4	
RICH0134	No	00400	PH (STANDARD UNITS)	09/20/67-12/14/98	31	264	T,A,S
RICH0136	Yes	00400	PH (STANDARD UNITS)	04/08/87-09/12/89	2	6	
RICH0140	No	00400	PH (STANDARD UNITS)	07/19/94-10/19/94	0	2	
RICH0143	No	00400	PH (STANDARD UNITS)	09/20/67-06/14/79	11	108	
RICH0144	No	00400	PH (STANDARD UNITS)	04/08/87-09/12/89	2	6	
RICH0145	No	00400	PH (STANDARD UNITS)	04/08/87-09/04/91	4	26	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0146	No	00400	PH (STANDARD UNITS)	02/10/75-12/07/98	23	233	A
RICH0147	No	00400	PH (STANDARD UNITS)	10/31/89-09/04/91	1	24	
RICH0001	No	00403	PH, LAB, STANDARD UNITS SU	10/26/73-11/25/74	1	11	
RICH0003	No	00403	PH, LAB, STANDARD UNITS SU	01/03/75-01/03/75	0	1	
RICH0005	No	00403	PH, LAB, STANDARD UNITS SU	01/03/75-06/19/90	15	21	
RICH0006	No	00403	PH, LAB, STANDARD UNITS SU	01/03/75-06/22/79	4	2	
RICH0011	No	00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	24	55	
RICH0015	No	00403	PH, LAB, STANDARD UNITS SU	03/20/69-05/26/74	5	6	
RICH0019	No	00403	PH, LAB, STANDARD UNITS SU	10/24/68-06/20/90	21	30	
RICH0023	No	00403	PH, LAB, STANDARD UNITS SU	03/20/69-05/26/74	5	6	
RICH0032	No	00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	29	77	S
RICH0036	No	00403	PH, LAB, STANDARD UNITS SU	01/23/80-06/20/90	10	20	
RICH0059	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	10	
RICH0061	No	00403	PH, LAB, STANDARD UNITS SU	07/19/90-11/19/98	8	35	
RICH0064	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	10	
RICH0065	No	00403	PH, LAB, STANDARD UNITS SU	10/24/68-12/07/98	30	73	S
RICH0067	No	00403	PH, LAB, STANDARD UNITS SU	11/29/83-06/20/90	6	18	
RICH0069	No	00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	29	66	S
RICH0077	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	10	
RICH0080	No	00403	PH, LAB, STANDARD UNITS SU	03/29/76-03/29/76	0	1	
RICH0083	No	00403	PH, LAB, STANDARD UNITS SU	04/29/80-08/14/89	9	10	
RICH0084	No	00403	PH, LAB, STANDARD UNITS SU	04/08/87-09/13/89	2	6	
RICH0085	No	00403	PH, LAB, STANDARD UNITS SU	05/29/96-12/14/98	2	32	
RICH0089	No	00403	PH, LAB, STANDARD UNITS SU	03/20/69-05/29/74	5	6	
RICH0091	No	00403	PH, LAB, STANDARD UNITS SU	08/06/97-12/07/98	1	9	
RICH0093	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	10	
RICH0094	No	00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	29	148	S
RICH0096	No	00403	PH, LAB, STANDARD UNITS SU	09/20/67-10/29/70	3	12	
RICH0099	No	00403	PH, LAB, STANDARD UNITS SU	10/17/83-10/17/83	0	1	
RICH0100	No	00403	PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	2	6	
RICH0101	No	00403	PH, LAB, STANDARD UNITS SU	06/02/74-06/20/90	16	19	
RICH0102	No	00403	PH, LAB, STANDARD UNITS SU	06/02/74-02/21/89	14	7	
RICH0104	No	00403	PH, LAB, STANDARD UNITS SU	07/20/94-11/23/98	4	20	
RICH0105	No	00403	PH, LAB, STANDARD UNITS SU	03/20/69-06/01/95	26	17	
RICH0106	No	00403	PH, LAB, STANDARD UNITS SU	03/24/83-10/17/83	0	2	
RICH0108	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	12	
RICH0110	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	11	
RICH0115	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	12	
RICH0116	No	00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	30	145	S
RICH0118	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	11	
RICH0119	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	11	
RICH0120	No	00403	PH, LAB, STANDARD UNITS SU	10/07/68-04/25/78	9	8	
RICH0125	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	12	
RICH0126	No	00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	0	11	
RICH0130	No	00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	31	66	S
RICH0131	No	00403	PH, LAB, STANDARD UNITS SU	04/08/87-10/31/89	2	7	
RICH0132	No	00403	PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	2	6	
RICH0134	No	00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	31	67	S
RICH0136	Yes	00403	PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	2	6	
RICH0143	No	00403	PH, LAB, STANDARD UNITS SU	09/20/67-10/29/70	3	12	
RICH0144	No	00403	PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	2	6	
RICH0145	No	00403	PH, LAB, STANDARD UNITS SU	04/08/87-10/31/89	2	7	
RICH0146	No	00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	17	90	
RICH0147	No	00403	PH, LAB, STANDARD UNITS SU	10/31/89-10/31/89	0	1	
RICH0149	No	00403	PH, LAB, STANDARD UNITS SU	04/03/86-04/03/86	0	1	
RICH0027	No	00405	CARBON DIOXIDE (MG/L AS CO2)	03/12/74-12/21/78	4	20	
RICH0050	Yes	00405	CARBON DIOXIDE (MG/L AS CO2)	11/30/76-11/30/76	0	1	
RICH0080	No	00405	CARBON DIOXIDE (MG/L AS CO2)	05/17/78-05/17/78	0	1	
RICH0044	Yes	00406	PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	0	1	
RICH0047	Yes	00406	PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	0	1	
RICH0051	Yes	00406	PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	0	1	
RICH0053	Yes	00406	PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	0	1	
RICH0054	Yes	00406	PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	0	1	
RICH0058	No	00406	PH, FIELD, STANDARD UNITS SU	06/15/89-06/15/89	0	1	
RICH0149	No	00409	ALKALINITY, TOTAL,LOW LEVEL GRAN ANALYSIS UEQ/L	04/03/86-04/03/86	0	1	
RICH0001	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/26/73-11/25/74	1	11	
RICH0003	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/03/75-01/03/75	0	1	
RICH0005	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/03/75-06/19/90	15	21	
RICH0006	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/03/75-06/22/79	4	2	
RICH0011	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	24	59	
RICH0015	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-05/26/74	5	6	
RICH0019	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-06/20/90	21	30	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0023	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-09/27/83	14	9	
RICH0027	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/12/74-12/21/78	4	20	
RICH0032	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	29	78	S
RICH0036	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/23/80-06/20/90	10	20	
RICH0050	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/30/76-07/25/78	1	2	
RICH0059	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	10	
RICH0060	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/83-09/27/83	0	3	
RICH0061	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	8	34	
RICH0064	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/83-06/01/95	11	12	
RICH0065	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-12/07/98	30	73	S
RICH0067	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/29/83-06/20/90	6	19	
RICH0069	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	29	69	S
RICH0077	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	10	
RICH0080	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/29/76-03/29/76	0	1	
RICH0082	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/09/69-05/09/69	0	1	
RICH0083	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/80-08/08/94	14	10	
RICH0085	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/29/96-12/14/98	2	32	
RICH0089	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-09/20/83	14	8	
RICH0091	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/06/97-12/07/98	1	9	
RICH0093	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	10	
RICH0094	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	29	148	S
RICH0096	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-10/29/70	3	12	
RICH0101	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/02/74-06/20/90	16	21	
RICH0102	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/02/74-02/21/89	14	6	
RICH0104	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/20/94-11/23/98	4	20	
RICH0105	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-06/01/95	26	17	
RICH0108	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	12	
RICH0110	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	11	
RICH0113	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/83-09/27/83	0	3	
RICH0115	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	12	
RICH0116	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	30	146	S
RICH0118	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	11	
RICH0119	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	11	
RICH0120	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/07/68-04/25/78	9	8	
RICH0125	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	12	
RICH0126	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	0	11	
RICH0130	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	31	66	S
RICH0134	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	31	65	S
RICH0143	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-10/29/70	3	12	
RICH0146	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	17	89	
RICH0011	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/16/83-10/03/83	0	4	
RICH0023	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	0	3	
RICH0032	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/20/83-10/03/83	0	2	
RICH0060	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	0	3	
RICH0064	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/20/83-10/03/83	0	2	
RICH0069	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	0	3	
RICH0089	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/16/83-09/20/83	0	2	
RICH0094	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/21/74-07/21/74	0	1	
RICH0096	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/20/67-09/20/67	0	1	
RICH0113	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	0	3	
RICH0116	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/16/83-10/03/83	0	2	
RICH0134	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/06/70-05/06/70	0	1	
RICH0094	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/24/69-08/15/79	10	4	
RICH0027	No	00440	BICARBONATE ION (MG/L AS HCO3)	03/12/74-12/21/78	4	20	
RICH0050	Yes	00440	BICARBONATE ION (MG/L AS HCO3)	11/30/76-07/25/78	1	2	
RICH0082	No	00440	BICARBONATE ION (MG/L AS HCO3)	07/30/45-05/09/69	23	45	
RICH0149	No	00440	BICARBONATE ION (MG/L AS HCO3)	04/03/86-04/03/86	0	1	
RICH0027	No	00445	CARBONATE ION (MG/L AS CO3)	03/12/74-12/21/78	4	19	
RICH0050	Yes	00445	CARBONATE ION (MG/L AS CO3)	11/30/76-11/30/76	0	1	
RICH0082	No	00445	CARBONATE ION (MG/L AS CO3)	05/09/69-05/09/69	0	1	
RICH0131	No	00452	CARBONATE, WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	06/11/91-06/11/91	0	1	
RICH0145	No	00452	CARBONATE, WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	06/11/91-06/11/91	0	1	
RICH0147	No	00452	CARBONATE, WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	06/11/91-06/11/91	0	1	
RICH0131	No	00453	BICARBONATE, WATER,DISS,INCR TIT, FIELD, AS HCO3, MG/L	06/11/91-06/11/91	0	1	
RICH0145	No	00453	BICARBONATE, WATER,DISS,INCR TIT, FIELD, AS HCO3, MG/L	06/11/91-06/11/91	0	1	
RICH0147	No	00453	BICARBONATE, WATER,DISS,INCR TIT, FIELD, AS HCO3, MG/L	06/11/91-06/11/91	0	1	
RICH0011	No	00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	0	2	
RICH0015	No	00480	SALINITY - PARTS PER THOUSAND	06/28/83-06/28/83	0	1	
RICH0023	No	00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	0	2	
RICH0032	No	00480	SALINITY - PARTS PER THOUSAND	06/28/83-06/28/83	0	1	
RICH0060	No	00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	0	2	
RICH0069	No	00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	0	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0089	No	00480	SALINITY - PARTS PER THOUSAND	11/18/82-11/18/82	0	1	
RICH0105	No	00480	SALINITY - PARTS PER THOUSAND	11/18/82-11/18/82	0	1	
RICH0005	No	00500	RESIDUE, TOTAL (MG/L)	08/14/79-06/19/90	10	20	
RICH0006	No	00500	RESIDUE, TOTAL (MG/L)	11/24/75-06/22/79	3	35	
RICH0011	No	00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	24	84	
RICH0015	No	00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	14	8	
RICH0019	No	00500	RESIDUE, TOTAL (MG/L)	10/24/68-06/20/90	21	30	
RICH0023	No	00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	14	35	
RICH0032	No	00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	26	44	S
RICH0036	No	00500	RESIDUE, TOTAL (MG/L)	08/15/79-06/20/90	10	17	
RICH0059	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	10	
RICH0060	No	00500	RESIDUE, TOTAL (MG/L)	05/19/80-06/28/83	3	12	
RICH0061	No	00500	RESIDUE, TOTAL (MG/L)	07/19/90-11/19/98	8	35	
RICH0064	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	10	
RICH0065	No	00500	RESIDUE, TOTAL (MG/L)	10/24/68-12/07/98	30	73	S
RICH0066	No	00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/21/79	6	59	
RICH0067	No	00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	17	77	
RICH0069	No	00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	14	36	
RICH0077	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-05/18/95	0	9	
RICH0080	No	00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	6	60	
RICH0085	No	00500	RESIDUE, TOTAL (MG/L)	05/29/96-12/14/98	2	32	
RICH0089	No	00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	14	36	
RICH0091	No	00500	RESIDUE, TOTAL (MG/L)	08/06/97-12/07/98	1	9	
RICH0093	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	10	
RICH0094	No	00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	29	145	S
RICH0096	No	00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	10	105	
RICH0101	No	00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/20/90	17	78	
RICH0102	No	00500	RESIDUE, TOTAL (MG/L)	05/27/74-02/21/89	14	52	
RICH0103	No	00500	RESIDUE, TOTAL (MG/L)	09/26/72-07/21/74	1	15	
RICH0104	No	00500	RESIDUE, TOTAL (MG/L)	07/20/94-11/23/98	4	20	
RICH0105	No	00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	26	44	S
RICH0108	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	12	
RICH0110	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	11	
RICH0115	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	12	
RICH0116	No	00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	27	84	S
RICH0118	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	11	
RICH0119	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	11	
RICH0120	No	00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/02/74	5	8	
RICH0121	No	00500	RESIDUE, TOTAL (MG/L)	10/24/79-12/18/79	0	2	
RICH0125	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	12	
RICH0126	No	00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	0	11	
RICH0130	No	00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	30	159	S
RICH0134	No	00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	30	159	S
RICH0143	No	00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	10	101	
RICH0146	No	00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	23	107	
RICH0005	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	08/14/79-06/19/90	10	20	
RICH0006	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/24/75-06/22/79	3	35	
RICH0011	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	24	84	
RICH0015	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	14	8	
RICH0019	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-06/20/90	21	30	
RICH0023	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	14	35	
RICH0032	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	26	44	S
RICH0036	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	08/15/79-06/20/90	10	17	
RICH0059	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	10	
RICH0060	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/19/80-06/28/83	3	12	
RICH0061	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/19/90-11/19/98	8	35	
RICH0064	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	10	
RICH0065	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-12/07/98	30	73	S
RICH0066	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/21/79	6	58	
RICH0067	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	17	76	
RICH0069	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	14	36	
RICH0077	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-05/18/95	0	9	
RICH0080	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	6	60	
RICH0085	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/29/96-12/14/98	2	31	
RICH0089	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	14	36	
RICH0091	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	08/06/97-12/07/98	1	9	
RICH0093	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	10	
RICH0094	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	29	147	S
RICH0096	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	106	
RICH0101	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/20/90	17	79	
RICH0102	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/27/74-02/21/89	14	52	
RICH0103	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-07/21/74	1	15	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0104	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/20/94-11/23/98	4	20	
RICH0105	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	26	44	S
RICH0108	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	11	
RICH0110	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	11	
RICH0115	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	12	
RICH0116	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	27	83	S
RICH0118	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	11	
RICH0119	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	11	
RICH0120	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	10/07/68-06/02/74	5	8	
RICH0125	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	12	
RICH0126	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	0	11	
RICH0130	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	31	160	T,S
RICH0134	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	31	160	T,S
RICH0143	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	103	
RICH0146	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	23	107	
RICH0002	No	00510	RESIDUE, TOTAL FIXED (MG/L)	08/09/72-08/09/72	0	1	
RICH0005	No	00510	RESIDUE, TOTAL FIXED (MG/L)	08/14/79-06/19/90	10	21	
RICH0006	No	00510	RESIDUE, TOTAL FIXED (MG/L)	11/24/75-06/22/79	3	35	
RICH0011	No	00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	24	84	
RICH0015	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	14	8	
RICH0019	No	00510	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-06/20/90	21	28	
RICH0023	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	14	35	
RICH0032	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	26	44	S
RICH0036	No	00510	RESIDUE, TOTAL FIXED (MG/L)	08/15/79-06/20/90	10	17	
RICH0059	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	10	
RICH0060	No	00510	RESIDUE, TOTAL FIXED (MG/L)	05/19/80-06/28/83	3	12	
RICH0061	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/19/90-11/19/98	8	35	
RICH0064	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	10	
RICH0065	No	00510	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-12/07/98	29	71	S
RICH0066	No	00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/21/79	6	59	
RICH0067	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	17	76	
RICH0069	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	14	36	
RICH0077	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-05/18/95	0	9	
RICH0080	No	00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	6	59	
RICH0085	No	00510	RESIDUE, TOTAL FIXED (MG/L)	05/29/96-12/14/98	2	31	
RICH0089	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	14	36	
RICH0091	No	00510	RESIDUE, TOTAL FIXED (MG/L)	08/06/97-12/07/98	1	9	
RICH0093	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	10	
RICH0094	No	00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	29	146	S
RICH0096	No	00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	10	103	
RICH0101	No	00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/20/90	17	79	
RICH0102	No	00510	RESIDUE, TOTAL FIXED (MG/L)	05/27/74-02/21/89	14	52	
RICH0103	No	00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-07/21/74	1	15	
RICH0104	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/20/94-11/23/98	4	20	
RICH0105	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	26	44	S
RICH0108	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	12	
RICH0110	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	10	
RICH0115	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	12	
RICH0116	No	00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	27	82	S
RICH0118	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	11	
RICH0119	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	11	
RICH0120	No	00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/02/74	5	6	
RICH0125	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	12	
RICH0126	No	00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	0	11	
RICH0130	No	00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	29	156	S
RICH0134	No	00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	29	156	S
RICH0143	No	00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	10	99	
RICH0146	No	00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	23	107	
RICH0006	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	06/27/76-08/29/77	1	2	
RICH0011	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-10/03/83	2	5	
RICH0023	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-09/27/83	2	4	
RICH0032	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-10/03/83	2	3	
RICH0060	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/80-09/27/83	3	4	
RICH0064	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	09/20/83-10/03/83	0	2	
RICH0069	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-09/27/83	2	4	
RICH0089	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-09/20/83	2	3	
RICH0096	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	03/23/73-03/23/73	0	1	
RICH0105	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-07/27/81	0	1	
RICH0113	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/28/83-09/27/83	0	3	
RICH0116	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	08/16/83-10/03/83	0	2	
RICH0130	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	03/23/73-03/23/73	0	1	
RICH0002	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/05/72-09/05/72	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0005	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	119	
RICH0006	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/24/75-06/22/79	3	34	
RICH0011	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	24	94	
RICH0015	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/28/83	14	22	
RICH0019	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	21	160	
RICH0023	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-09/27/83	14	56	
RICH0032	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	29	351	T,S
RICH0035	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/09/72-08/09/72	0	1	
RICH0036	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	112	
RICH0059	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0060	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/01/75-09/27/83	8	33	
RICH0061	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/19/90-11/19/98	8	35	
RICH0064	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/20/83-06/01/95	11	14	
RICH0065	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	29	166	T,S
RICH0066	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	6	61	
RICH0067	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	17	174	
RICH0069	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	29	347	T,S
RICH0077	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0080	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	6	61	
RICH0083	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/80-09/09/80	0	9	
RICH0085	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/29/96-12/14/98	2	31	
RICH0089	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-10/12/83	14	62	
RICH0091	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/06/97-12/07/98	1	9	
RICH0093	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0094	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	29	240	T,A,S
RICH0096	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	103	
RICH0101	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	17	175	
RICH0102	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	14	140	
RICH0103	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-07/21/74	1	15	
RICH0104	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/20/94-11/23/98	4	20	
RICH0105	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/01/95	26	62	S
RICH0108	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0110	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0113	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/28/83-10/03/83	0	7	
RICH0115	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0116	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	30	368	T,A,S
RICH0118	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	12	
RICH0119	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0120	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/02/74	5	6	
RICH0121	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/19/79-09/03/81	1	22	
RICH0125	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0126	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0130	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	29	156	S
RICH0134	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	29	251	T,A,S
RICH0143	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	99	
RICH0146	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	23	186	
RICH0002	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/09/72-09/05/72	0	2	
RICH0005	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	120	
RICH0006	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/24/75-06/22/79	3	35	
RICH0011	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	24	94	
RICH0015	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/28/83	14	22	
RICH0019	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	21	160	
RICH0023	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-09/27/83	14	56	
RICH0032	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	29	351	T,S
RICH0035	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/09/72-08/09/72	0	1	
RICH0036	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	112	
RICH0059	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0060	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/01/75-09/27/83	8	33	
RICH0061	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/19/90-11/19/98	8	35	
RICH0064	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/83-06/01/95	11	14	
RICH0065	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	30	168	T,S
RICH0066	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	6	61	
RICH0067	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	17	173	
RICH0069	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	29	347	T,S
RICH0077	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0080	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	6	61	
RICH0083	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/29/80-09/09/80	0	9	
RICH0085	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/29/96-12/14/98	2	31	
RICH0089	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-10/12/83	14	62	
RICH0091	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/06/97-12/07/98	1	9	
RICH0093	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0094	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	29	237	T,A,S

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0096	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	103	
RICH0101	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	17	174	
RICH0102	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	14	141	
RICH0103	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-07/21/74	1	15	
RICH0104	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/20/94-11/23/98	4	20	
RICH0105	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/01/95	26	61	S
RICH0108	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0110	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0113	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/28/83-10/03/83	0	7	
RICH0115	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0116	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	30	368	T,A,S
RICH0118	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	12	
RICH0119	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0120	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/07/68-06/02/74	5	8	
RICH0125	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0126	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0130	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	31	161	T,S
RICH0134	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	31	255	T,A,S
RICH0143	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	102	
RICH0146	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	23	186	
RICH0002	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/09/72-09/05/72	0	2	
RICH0005	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	120	
RICH0006	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	11/24/75-06/22/79	3	36	
RICH0011	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	24	90	
RICH0015	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	14	22	
RICH0019	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	21	160	
RICH0023	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	14	53	
RICH0032	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	29	348	T,S
RICH0035	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/09/72-08/09/72	0	1	
RICH0036	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	112	
RICH0059	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0060	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/01/75-06/28/83	8	30	
RICH0061	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/19/90-11/19/98	8	35	
RICH0064	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0065	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	29	166	T,S
RICH0066	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	6	61	
RICH0067	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	17	174	
RICH0069	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	29	342	T,S
RICH0077	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0080	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	6	61	
RICH0083	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/29/80-09/09/80	0	9	
RICH0085	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/29/96-12/14/98	2	31	
RICH0089	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	14	54	
RICH0091	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/06/97-12/07/98	1	9	
RICH0093	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	11	
RICH0094	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	29	239	T,A,S
RICH0096	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-16/14/79	10	101	
RICH0101	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	17	176	
RICH0102	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	14	141	
RICH0103	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-07/21/74	1	15	
RICH0104	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/20/94-11/23/98	4	20	
RICH0105	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/01/95	26	62	S
RICH0108	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0110	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	12	
RICH0115	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0116	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	30	363	T,A,S
RICH0118	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	0	12	
RICH0119	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0120	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/02/74	5	6	
RICH0125	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	14	
RICH0126	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	0	13	
RICH0130	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	29	155	S
RICH0134	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	29	249	T,A,S
RICH0143	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	96	
RICH0146	No	00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	23	185	
RICH0036	No	00545	RESIDUE, SETTLEABLE (ML/L)	10/02/74-06/21/79	4	34	
RICH0066	No	00545	RESIDUE, SETTLEABLE (ML/L)	03/01/77-03/01/77	0	1	
RICH0094	No	00545	RESIDUE, SETTLEABLE (ML/L)	02/03/69-02/03/69	0	1	
RICH0134	No	00545	RESIDUE, SETTLEABLE (ML/L)	08/18/82-08/18/82	0	1	
RICH0084	No	00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC, MG/L	09/04/91-09/04/91	0	1	
RICH0131	No	00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC, MG/L	10/31/89-09/04/91	1	18	
RICH0145	No	00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC, MG/L	10/31/89-09/04/91	1	16	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0147	No	00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC,MG/L	10/31/89-09/04/91	1	21	
RICH0027	No	00572	BIO MASS, PERIPHYTON (GRAMS PER SQUARE METER)	09/14/74-03/05/75	0	3	
RICH0027	No	00573	BIO MASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	03/05/75-03/05/75	0	1	
RICH0027	No	00600	NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	4	120	
RICH0121	No	00600	NITROGEN, TOTAL (MG/L AS N)	10/24/79-09/03/81	1	23	
RICH0027	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	4	114	
RICH0032	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	14	408	
RICH0069	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	10	280	
RICH0084	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/11/84-09/13/89	5	7	
RICH0100	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	04/08/87-09/12/89	2	6	
RICH0116	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	14	208	
RICH0131	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/11/84-09/12/89	5	7	
RICH0132	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/10/84-09/12/89	5	7	
RICH0142	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/10/84-09/10/84	0	1	
RICH0144	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/10/84-09/12/89	5	7	
RICH0145	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	04/08/87-09/12/89	2	6	
RICH0001	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/26/73-11/25/74	1	11	
RICH0002	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/08/72-03/24/78	5	32	
RICH0003	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	6	65	
RICH0005	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	17	183	
RICH0006	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/29/74-06/22/79	5	51	
RICH0008	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/10/74-06/12/79	4	41	
RICH0010	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-09/19/73	0	4	
RICH0011	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	24	101	
RICH0015	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/19/69-06/28/83	14	36	
RICH0018	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/69-11/04/71	2	18	
RICH0019	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	20	178	
RICH0023	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	13	72	
RICH0027	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	4	120	
RICH0028	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-01/10/74	0	8	
RICH0029	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	6	59	
RICH0032	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/69-06/01/95	26	80	S
RICH0035	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/31/72-07/08/74	1	10	
RICH0036	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	15	151	
RICH0059	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0060	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/01/75-09/27/83	8	35	
RICH0061	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/19/90-11/19/98	8	36	
RICH0064	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/20/83-06/01/95	11	14	
RICH0065	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	28	226	T,A,S
RICH0066	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	6	64	
RICH0067	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	17	173	A
RICH0069	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	13	71	
RICH0070	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-11/04/71	1	13	
RICH0077	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/28/94-06/01/95	0	12	
RICH0079	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	6	62	
RICH0080	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	6	62	
RICH0081	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	6	62	
RICH0083	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/80-08/08/94	14	11	
RICH0084	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/04/91-09/04/91	0	1	
RICH0085	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/29/96-12/14/98	2	32	
RICH0089	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/20/83	13	70	
RICH0091	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	08/06/97-12/07/98	1	9	
RICH0092	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/17/70-11/04/71	1	15	
RICH0093	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/28/94-06/01/95	0	12	
RICH0094	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	26	236	T,A,S
RICH0096	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10	104	
RICH0101	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	17	173	
RICH0102	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	14	140	
RICH0103	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-07/21/74	1	14	
RICH0104	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/20/94-11/23/98	4	20	
RICH0105	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	25	76	S
RICH0108	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	0	13	
RICH0110	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	0	12	
RICH0113	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/28/83-10/12/83	0	14	
RICH0115	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	0	13	
RICH0116	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	25	267	T,A,S
RICH0118	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	0	12	
RICH0119	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	0	12	
RICH0120	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	9	83	
RICH0122	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/19/71-11/04/71	0	4	
RICH0125	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	0	13	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0126	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	0	12	
RICH0130	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	30	157	S
RICH0131	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/31/89-09/04/91	1	23	
RICH0134	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	30	249	T,A,S
RICH0141	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/11/88-07/11/88	0	1	
RICH0143	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10	100	
RICH0145	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/31/89-09/04/91	1	20	
RICH0146	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	23	222	A
RICH0147	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/31/89-09/04/91	1	25	
RICH0032	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	14	415	
RICH0050	Yes	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/30/76-07/25/78	1	2	
RICH0069	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	10	289	
RICH0116	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	14	210	
RICH0001	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/26/73-11/25/74	1	11	
RICH0002	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/08/72-03/24/78	5	32	
RICH0003	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	6	65	
RICH0005	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	17	182	
RICH0006	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/29/74-06/22/79	5	51	
RICH0008	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	09/10/74-06/12/79	4	41	
RICH0010	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-09/19/73	0	4	
RICH0011	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	24	97	
RICH0015	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	14	36	
RICH0019	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	20	180	
RICH0023	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	13	71	
RICH0028	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-01/10/74	0	8	
RICH0029	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	6	60	
RICH0032	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	26	79	S
RICH0035	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/31/72-07/08/74	1	10	
RICH0036	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	15	151	
RICH0059	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0060	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	8	35	
RICH0061	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	8	36	
RICH0064	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	09/20/83-06/01/95	11	13	
RICH0065	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	28	226	T,A,S
RICH0066	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	6	63	
RICH0067	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	17	174	A
RICH0069	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	13	73	
RICH0077	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0079	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	6	63	
RICH0080	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	6	62	
RICH0081	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	6	62	
RICH0083	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/29/80-08/08/94	14	8	
RICH0085	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/29/96-12/14/98	2	32	
RICH0089	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	13	69	
RICH0091	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	08/06/97-12/07/98	1	9	
RICH0093	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0094	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	26	236	T,A,S
RICH0096	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10	104	
RICH0101	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	17	172	
RICH0102	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	14	140	
RICH0103	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-07/21/74	1	14	
RICH0104	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/20/94-11/23/98	4	20	
RICH0105	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	25	77	S
RICH0108	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0110	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0113	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/83-10/12/83	0	13	
RICH0115	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0116	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	25	266	T,A,S
RICH0118	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0119	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0120	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	9	84	
RICH0125	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0126	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0130	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	30	158	S
RICH0134	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	30	247	T,A,S
RICH0141	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/11/88-07/11/88	0	1	
RICH0143	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10	100	
RICH0146	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	23	223	A
RICH0032	No	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	14	409	
RICH0050	Yes	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	11/30/76-07/25/78	1	2	
RICH0069	No	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	10	289	
RICH0116	No	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	14	208	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0001	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/26/73-11/25/74	1	11	
RICH0002	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/08/72-08/13/76	4	31	
RICH0003	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-05/26/78	5	51	
RICH0005	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	17	169	
RICH0006	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/29/74-05/26/78	3	37	
RICH0008	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	09/10/74-05/15/78	3	26	
RICH0010	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-09/19/73	0	4	
RICH0011	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	24	97	
RICH0015	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	14	36	
RICH0019	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	20	167	
RICH0023	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	13	71	
RICH0028	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/18/73-01/10/74	0	8	
RICH0029	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/18/73-02/02/79	5	47	
RICH0032	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	26	79	S
RICH0035	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/31/72-07/08/74	1	10	
RICH0036	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	15	138	
RICH0059	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0060	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	8	35	
RICH0061	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	8	36	
RICH0064	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	09/20/83-06/01/95	11	13	
RICH0065	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	28	211	T,S
RICH0066	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	6	52	
RICH0067	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	17	160	
RICH0069	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	13	70	
RICH0077	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0079	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-03/07/79	5	48	
RICH0080	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	6	50	
RICH0081	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-03/07/79	5	50	
RICH0083	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	08/14/89-08/08/94	4	2	
RICH0085	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/29/96-12/14/98	2	32	
RICH0089	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	13	70	
RICH0091	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	08/06/97-12/07/98	1	9	
RICH0093	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0094	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	26	219	T,A,S
RICH0096	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	8	85	
RICH0101	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	17	156	
RICH0102	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	14	124	
RICH0103	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-07/21/74	1	14	
RICH0104	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/20/94-11/23/98	4	20	
RICH0105	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	25	77	S
RICH0108	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0110	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0113	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/83-10/12/83	0	12	
RICH0115	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0116	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	25	248	T,A,S
RICH0118	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0119	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0120	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	7	68	
RICH0125	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0126	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0130	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	30	140	S
RICH0134	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	30	228	T,A,S
RICH0141	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/11/88-07/11/88	0	1	
RICH0143	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	8	82	
RICH0146	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	23	206	
RICH0111	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/16/83-10/03/83	0	4	
RICH0023	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0032	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	09/20/83-10/03/83	0	2	
RICH0060	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0064	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	09/20/83-10/03/83	0	2	
RICH0069	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0089	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/16/83-09/20/83	0	2	
RICH0113	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0116	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/16/83-10/03/83	0	2	
RICH0001	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/26/73-11/25/74	1	11	
RICH0002	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/08/72-03/24/78	5	32	
RICH0003	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	6	65	
RICH0005	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	17	180	
RICH0006	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/29/74-06/22/79	5	51	
RICH0008	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/74-06/12/79	4	41	
RICH0010	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-09/19/73	0	4	
RICH0011	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	24	97	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0015	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	06/19/69-06/28/83	14	36	
RICH0018	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-11/04/71	2	19	
RICH0019	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	20	178	
RICH0023	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/27/83	13	71	
RICH0027	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	4	120	
RICH0028	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-01/10/74	0	8	
RICH0029	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	6	60	
RICH0032	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	26	377	T,S
RICH0035	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/31/72-07/08/74	1	10	
RICH0036	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	15	147	
RICH0059	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0060	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/01/75-09/27/83	8	35	
RICH0061	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/19/90-11/19/98	8	36	
RICH0064	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/20/83-06/01/95	11	13	
RICH0065	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	28	223	T,S
RICH0066	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	6	64	
RICH0067	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	17	171	
RICH0069	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	23	245	
RICH0070	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-11/04/71	1	14	
RICH0077	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0079	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	6	62	
RICH0080	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	6	62	
RICH0081	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	6	63	
RICH0083	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/80-08/08/94	14	11	
RICH0084	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/11/84-09/04/91	6	8	
RICH0085	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/29/96-12/14/98	2	32	
RICH0089	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/20/83	13	70	
RICH0091	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/06/97-12/07/98	1	9	
RICH0092	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/17/70-11/04/71	1	16	
RICH0093	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/14/94-06/01/95	0	11	
RICH0094	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	26	233	T,A,S
RICH0096	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	104	
RICH0100	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/08/87-09/12/89	2	6	
RICH0101	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	17	170	
RICH0102	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	14	138	
RICH0103	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-07/21/74	1	14	
RICH0104	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/20/94-11/23/98	4	20	
RICH0105	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	25	77	S
RICH0108	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0110	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0113	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0115	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0116	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	25	410	T,A,S
RICH0118	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0119	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0120	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	9	84	
RICH0121	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/24/79-09/03/81	1	24	
RICH0122	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/19/71-11/04/71	0	4	
RICH0125	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	0	12	
RICH0126	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	0	11	
RICH0130	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	30	158	S
RICH0131	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/11/84-09/04/91	6	30	
RICH0132	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/08/87-09/12/89	2	5	
RICH0134	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	30	243	A,S
RICH0136	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/84-09/12/89	5	7	
RICH0142	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/84-09/10/84	0	1	
RICH0143	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	99	
RICH0144	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/84-09/12/89	5	7	
RICH0145	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/08/87-09/04/91	4	26	
RICH0146	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	23	220	
RICH0147	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/31/89-09/04/91	1	25	
RICH0002	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/24/78-03/24/78	0	1	
RICH0003	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/22/77-06/22/79	2	14	
RICH0005	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/22/77-06/22/79	2	13	
RICH0006	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/22/77-06/22/79	2	14	
RICH0008	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/01/77-06/12/79	1	15	
RICH0018	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/20/69-11/04/71	2	19	
RICH0019	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	1	13	
RICH0027	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	4	120	
RICH0029	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	1	12	
RICH0036	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	1	13	
RICH0065	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-08/07/80	3	15	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0066	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	1	12	
RICH0067	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	1	12	
RICH0070	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/21/70-11/04/71	1	15	
RICH0079	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	1	14	
RICH0080	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-04/23/79	1	12	
RICH0081	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	1	13	
RICH0083	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/29/80-08/14/89	9	10	
RICH0084	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/04/91-09/04/91	0	1	
RICH0092	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	02/17/70-11/04/71	1	16	
RICH0094	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/15/77-06/07/79	1	16	
RICH0096	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	1	18	
RICH0101	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/17/77-06/07/79	1	16	
RICH0102	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/17/77-04/21/82	4	17	
RICH0116	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/15/77-08/07/80	3	18	
RICH0120	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/15/77-06/07/79	1	16	
RICH0121	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/24/79-09/03/81	1	24	
RICH0122	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/19/71-11/04/71	0	4	
RICH0130	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	1	18	
RICH0131	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/31/89-09/04/91	1	23	
RICH0134	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	1	18	
RICH0143	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	1	18	
RICH0145	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/31/89-09/04/91	1	20	
RICH0146	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	1	17	
RICH0147	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/31/89-09/04/91	1	25	
RICH0011	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-10/03/83	0	4	
RICH0023	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0032	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/20/83-12/15/98	15	70	
RICH0050	Yes	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/30/76-07/25/78	1	2	
RICH0060	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0064	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/20/83-10/03/83	0	2	
RICH0069	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-12/15/98	15	69	
RICH0084	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/11/84-09/13/89	5	7	
RICH0089	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-09/20/83	0	2	
RICH0099	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	10/17/83-10/17/83	0	1	
RICH0100	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	04/08/87-09/12/89	2	6	
RICH0106	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	03/24/83-10/17/83	0	2	
RICH0113	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-09/27/83	0	3	
RICH0116	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-12/15/98	15	37	
RICH0131	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/11/84-09/12/89	5	7	
RICH0132	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/10/84-09/12/89	5	7	
RICH0142	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/10/84-09/10/84	0	1	
RICH0144	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/10/84-09/12/89	5	7	
RICH0145	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	04/08/87-09/12/89	2	6	
RICH0018	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/21/70-11/04/71	1	16	
RICH0070	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/21/70-11/04/71	1	14	
RICH0082	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	05/09/69-05/09/69	0	1	
RICH0092	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	02/17/70-11/04/71	1	16	
RICH0122	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	10/19/71-11/04/71	0	4	
RICH0018	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	03/20/69-11/04/71	2	19	
RICH0032	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	03/20/69-10/02/69	0	3	
RICH0050	Yes	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	11/30/76-07/25/78	1	2	
RICH0070	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	04/21/70-11/04/71	1	15	
RICH0092	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	02/17/70-11/04/71	1	17	
RICH0096	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	0	4	
RICH0122	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	10/19/71-11/04/71	0	4	
RICH0130	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	0	4	
RICH0134	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	0	4	
RICH0143	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	0	4	
RICH0005	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	10	117	
RICH0011	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	18	72	
RICH0015	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/28/83-06/28/83	0	1	
RICH0019	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	107	
RICH0023	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-09/27/83	3	16	
RICH0027	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	4	120	
RICH0032	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	15	327	
RICH0036	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	106	
RICH0059	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/14/94-06/01/95	0	11	
RICH0060	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-09/27/83	3	15	
RICH0061	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/90-11/19/98	8	36	
RICH0064	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/20/83-06/01/95	11	13	
RICH0065	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	19	149	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0067	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	107	
RICH0069	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	15	193	
RICH0077	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/14/94-06/01/95	0	11	
RICH0083	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/80-08/08/94	14	11	
RICH0084	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/11/84-09/04/91	6	8	
RICH0085	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/29/96-12/14/98	2	32	
RICH0089	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-09/20/83	3	15	
RICH0091	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/06/97-12/07/98	1	9	
RICH0093	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/14/94-06/01/95	0	11	
RICH0094	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	19	170	
RICH0100	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0101	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	107	
RICH0102	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	9	88	
RICH0104	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/20/94-11/23/98	4	20	
RICH0105	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-06/01/95	15	23	
RICH0108	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	0	12	
RICH0110	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0113	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/83-09/27/83	0	6	
RICH0115	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	0	12	
RICH0116	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	16	313	
RICH0118	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0119	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0121	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/24/79-09/03/81	1	24	
RICH0125	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	0	12	
RICH0126	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0130	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/94-12/14/98	4	54	
RICH0131	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/11/84-09/04/91	6	30	
RICH0132	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0134	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	19	143	
RICH0136	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/10/84-09/12/89	5	7	
RICH0141	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/11/88-07/11/88	0	1	
RICH0142	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/10/84-09/10/84	0	1	
RICH0144	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/10/84-09/12/89	5	7	
RICH0145	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/08/87-09/04/91	4	26	
RICH0146	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	19	178	
RICH0147	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/31/89-09/04/91	1	25	
RICH0032	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	11	335	
RICH0069	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	7	209	
RICH0084	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/13/89	2	6	
RICH0100	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0116	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	11	169	
RICH0131	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0132	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0144	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0145	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0149	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/03/86-04/03/86	0	1	
RICH0011	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	08/16/83-10/03/83	0	6	
RICH0023	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-09/27/83	0	3	
RICH0032	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	09/20/83-10/03/83	0	2	
RICH0060	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-09/27/83	0	3	
RICH0064	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	09/20/83-10/03/83	0	2	
RICH0069	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-09/27/83	0	3	
RICH0089	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	08/16/83-09/20/83	0	2	
RICH0113	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-10/03/83	0	8	
RICH0116	No	00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	08/16/83-10/03/83	0	3	
RICH0005	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	10	119	
RICH0011	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-07/07/94	14	18	
RICH0015	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	06/28/83-06/28/83	0	1	
RICH0019	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	109	
RICH0023	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-09/27/83	3	16	
RICH0032	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	18	428	
RICH0036	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	109	
RICH0050	Yes	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/30/76-07/25/78	1	2	
RICH0060	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-09/27/83	3	15	
RICH0061	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/19/90-07/17/91	0	5	
RICH0064	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/20/83-10/03/83	0	2	
RICH0065	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	11	110	
RICH0067	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	108	
RICH0069	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	18	305	
RICH0083	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/29/80-09/09/80	0	8	
RICH0084	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/11/84-09/13/89	5	7	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0089	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-09/20/83	3	15	
RICH0094	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	14	152	
RICH0100	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0101	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	110	
RICH0102	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	9	91	
RICH0105	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-06/28/83	3	12	
RICH0113	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/28/83-09/27/83	0	3	
RICH0116	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	19	365	A
RICH0131	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/11/84-09/12/89	5	7	
RICH0132	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0134	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	11	114	
RICH0136	Yes	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/10/84-09/12/89	5	7	
RICH0141	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/11/88-07/11/88	0	1	
RICH0142	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/10/84-09/10/84	0	1	
RICH0144	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/10/84-09/12/89	5	7	
RICH0145	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/08/87-09/12/89	2	6	
RICH0146	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	11	113	
RICH0005	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	10	112	
RICH0011	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-08/20/96	16	43	
RICH0015	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	06/28/83-06/28/83	0	1	
RICH0018	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	10/21/71-11/04/71	0	4	
RICH0019	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	15	148	
RICH0023	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-09/27/83	3	16	
RICH0027	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	4	113	
RICH0032	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	21	376	
RICH0036	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	105	
RICH0059	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	0	1	
RICH0060	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-09/27/83	3	15	
RICH0061	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/90-06/24/96	5	23	
RICH0064	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/20/83-07/14/94	10	3	
RICH0065	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	16	131	
RICH0066	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/26/75-06/21/79	4	42	
RICH0067	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	108	
RICH0069	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	21	241	
RICH0070	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	10/21/71-11/04/71	0	4	
RICH0077	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	0	1	
RICH0083	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/94-08/08/94	0	1	
RICH0084	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/11/84-09/04/91	6	8	
RICH0085	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/29/96-08/22/96	0	4	
RICH0089	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-09/20/83	3	15	
RICH0092	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	10/21/71-11/04/71	0	4	
RICH0093	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	0	1	
RICH0094	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	17	154	
RICH0100	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/08/87-09/12/89	2	6	
RICH0101	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	107	
RICH0102	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	13	130	
RICH0104	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/20/94-07/10/96	1	8	
RICH0105	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/22/74-07/14/94	19	34	
RICH0108	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	0	2	
RICH0110	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	0	2	
RICH0113	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/28/83-09/27/83	0	3	
RICH0115	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	0	2	
RICH0116	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	21	374	A
RICH0118	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	0	1	
RICH0119	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	0	2	
RICH0122	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	11/02/71-11/04/71	0	3	
RICH0125	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	0	2	
RICH0126	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	0	2	
RICH0130	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/94-08/22/96	2	26	
RICH0131	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/11/84-09/04/91	6	30	
RICH0132	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/08/87-09/12/89	2	5	
RICH0134	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	14	123	
RICH0136	Yes	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/10/84-09/12/89	5	7	
RICH0142	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/10/84-09/10/84	0	1	
RICH0144	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/10/84-09/12/89	5	7	
RICH0145	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/08/87-09/04/91	4	26	
RICH0146	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	17	149	
RICH0147	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	10/31/89-09/04/91	1	25	
RICH0149	No	00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	04/03/86-04/03/86	0	1	
RICH0061	No	00687	CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	09/12/97-09/12/97	0	1	
RICH0085	No	00687	CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	11/10/97-11/10/97	0	1	
RICH0104	No	00687	CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	04/19/95-04/19/95	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0130	No	00687	CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	02/15/95-11/10/97	2	2	
RICH0018	No	00690	CARBON, TOTAL (MG/L AS C)	10/21/71-11/04/71	0	4	
RICH0070	No	00690	CARBON, TOTAL (MG/L AS C)	10/21/71-11/04/71	0	4	
RICH0092	No	00690	CARBON, TOTAL (MG/L AS C)	10/21/71-11/04/71	0	4	
RICH0122	No	00690	CARBON, TOTAL (MG/L AS C)	11/02/71-11/04/71	0	3	
RICH0149	No	00691	CARBON, DISSOLVED INORGANIC (MG/L AS C)	04/03/86-04/03/86	0	1	
RICH0121	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	10/24/79-09/03/81	1	24	
RICH0131	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	10/31/89-03/31/91	1	15	
RICH0145	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	10/31/89-09/15/90	0	13	
RICH0147	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	10/31/89-09/15/90	0	16	
RICH0005	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/13/85-06/19/90	5	16	
RICH0011	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/07/94-12/15/98	4	54	
RICH0019	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-06/20/90	1	18	
RICH0032	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	6	70	
RICH0036	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-06/20/90	1	17	
RICH0050	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/30/76-07/25/78	1	2	
RICH0061	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	8	36	
RICH0065	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	13	63	
RICH0067	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-06/20/90	5	41	
RICH0069	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	02/17/94-12/15/98	4	55	
RICH0081	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/77-10/20/77	0	1	
RICH0082	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/30/45-05/09/69	23	45	
RICH0083	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	08/08/94-08/08/94	0	1	
RICH0085	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/29/96-12/14/98	2	32	
RICH0089	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/19/80-05/19/80	0	1	
RICH0091	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	08/06/97-12/07/98	1	9	
RICH0094	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	13	78	
RICH0096	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/12/67-10/12/67	0	1	
RICH0101	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-06/20/90	1	15	
RICH0102	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-02/21/89	0	2	
RICH0104	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/20/94-11/23/98	4	20	
RICH0116	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	12	117	
RICH0130	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	31	56	
RICH0134	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	31	51	S
RICH0143	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-10/12/67	0	2	S
RICH0146	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	01/25/89-12/07/98	9	87	
RICH0050	Yes	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	11/30/76-07/25/78	1	2	
RICH0082	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	01/14/48-05/09/69	21	8	
RICH0050	Yes	00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/30/76-07/25/78	1	2	
RICH0082	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/30/45-05/09/69	23	45	
RICH0084	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/13/89	2	6	
RICH0099	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/17/83-10/17/83	0	1	
RICH0100	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	2	6	
RICH0106	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	03/24/83-10/17/83	0	2	
RICH0131	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	2	6	
RICH0132	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	2	6	
RICH0144	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	2	6	
RICH0145	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	2	6	
RICH0149	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/03/86-04/03/86	0	1	
RICH0027	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/12/74-03/12/74	0	1	
RICH0043	Yes	00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0050	Yes	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/30/76-07/25/78	1	2	
RICH0082	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/30/45-05/09/69	23	45	
RICH0084	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/13/89	2	6	
RICH0099	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/17/83-10/17/83	0	1	
RICH0100	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	2	6	
RICH0106	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	03/24/83-10/17/83	0	2	
RICH0131	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	2	6	
RICH0132	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	2	6	
RICH0144	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	2	6	
RICH0145	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	2	6	
RICH0149	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/03/86-04/03/86	0	1	
RICH0027	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/12/74-03/12/74	0	1	
RICH0061	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	07/15/92-01/21/93	0	2	
RICH0065	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	07/15/92-01/21/93	0	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0116	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/02/92-11/02/92	0	1	
RICH0134	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/02/92-03/03/93	0	3	
RICH0146	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/02/92-03/03/93	0	3	
RICH0027	No	00929	SODIUM, TOTAL (MG/L AS NA)	06/26/74-06/26/74	0	1	
RICH0027	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	03/12/74-03/12/74	0	1	
RICH0050	Yes	00930	SODIUM, DISSOLVED (MG/L AS NA)	11/30/76-07/25/78	1	2	
RICH0082	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	07/30/45-05/09/69	23	45	
RICH0084	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/13/89	2	6	
RICH0099	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	10/17/83-10/17/83	0	1	
RICH0100	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	2	6	
RICH0106	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	03/24/83-10/17/83	0	2	
RICH0131	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	2	6	
RICH0132	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	2	6	
RICH0144	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	2	6	
RICH0145	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	2	6	
RICH0149	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/03/86-04/03/86	0	1	
RICH0050	Yes	00931	SODIUM ADSORPTION RATIO	11/30/76-07/25/78	1	2	
RICH0082	No	00931	SODIUM ADSORPTION RATIO	05/09/69-05/09/69	0	1	
RICH0050	Yes	00932	SODIUM, PERCENT	11/30/76-07/25/78	1	2	
RICH0082	No	00932	SODIUM, PERCENT	05/09/69-05/09/69	0	1	
RICH0050	Yes	00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/30/76-07/25/78	1	2	
RICH0082	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	10/01/45-05/09/69	23	10	
RICH0084	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/13/89	2	6	
RICH0099	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	10/17/83-10/17/83	0	1	
RICH0100	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	2	6	
RICH0106	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	03/24/83-10/17/83	0	2	
RICH0131	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	2	6	
RICH0132	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	2	6	
RICH0144	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	2	6	
RICH0145	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	2	6	
RICH0149	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/03/86-04/03/86	0	1	
RICH0027	No	00937	POTASSIUM, TOTAL MG/L AS K)	03/12/74-06/26/74	0	2	
RICH0001	No	00940	CHLORIDE, TOTAL IN WATER MG/L	11/28/73-05/29/74	0	2	
RICH0002	No	00940	CHLORIDE, TOTAL IN WATER MG/L	08/09/72-09/05/72	0	2	
RICH0003	No	00940	CHLORIDE, TOTAL IN WATER MG/L	01/23/78-01/23/78	0	1	
RICH0005	No	00940	CHLORIDE, TOTAL IN WATER MG/L	10/18/88-06/19/90	1	18	
RICH0011	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	24	79	
RICH0015	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-08/30/74	4	17	
RICH0018	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-05/05/70	0	1	
RICH0019	No	00940	CHLORIDE, TOTAL IN WATER MG/L	06/22/75-06/20/90	14	19	
RICH0023	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-04/24/79	8	38	
RICH0027	No	00940	CHLORIDE, TOTAL IN WATER MG/L	03/12/74-12/21/78	4	20	
RICH0029	No	00940	CHLORIDE, TOTAL IN WATER MG/L	06/15/76-06/15/76	0	1	
RICH0032	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	28	95	S
RICH0035	No	00940	CHLORIDE, TOTAL IN WATER MG/L	08/09/72-08/09/72	0	1	
RICH0036	No	00940	CHLORIDE, TOTAL IN WATER MG/L	06/23/77-06/20/90	12	18	
RICH0050	Yes	00940	CHLORIDE, TOTAL IN WATER MG/L	11/30/76-07/25/78	1	2	
RICH0059	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	10	
RICH0060	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/01/75-04/24/79	3	18	
RICH0061	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/19/90-11/19/98	8	34	
RICH0064	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	10	
RICH0065	No	00940	CHLORIDE, TOTAL IN WATER MG/L	10/24/88-12/07/98	10	61	
RICH0066	No	00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	6	61	
RICH0067	No	00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	17	79	
RICH0069	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	26	87	S
RICH0070	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-05/05/70	0	1	
RICH0077	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	10	
RICH0080	No	00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	6	63	
RICH0082	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/45-05/09/69	23	45	
RICH0084	No	00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/04/91	4	7	
RICH0085	No	00940	CHLORIDE, TOTAL IN WATER MG/L	05/29/96-12/14/98	2	32	
RICH0089	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-04/24/79	6	38	
RICH0091	No	00940	CHLORIDE, TOTAL IN WATER MG/L	08/06/97-12/07/98	1	9	
RICH0092	No	00940	CHLORIDE, TOTAL IN WATER MG/L	02/17/70-05/03/70	0	2	
RICH0093	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	10	
RICH0094	No	00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	23	78	
RICH0099	No	00940	CHLORIDE, TOTAL IN WATER MG/L	10/17/83-10/17/83	0	1	
RICH0100	No	00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	2	6	
RICH0101	No	00940	CHLORIDE, TOTAL IN WATER MG/L	10/24/88-06/20/90	1	15	
RICH0102	No	00940	CHLORIDE, TOTAL IN WATER MG/L	08/06/75-02/21/89	13	4	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0104	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/20/94-11/23/98	4	20	
RICH0105	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-06/01/95	22	46	
RICH0106	No	00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/83-10/17/83	0	2	
RICH0108	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	12	
RICH0110	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	11	
RICH0115	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	12	
RICH0116	No	00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	30	126	S
RICH0118	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	11	
RICH0119	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	11	
RICH0125	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	12	
RICH0126	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	0	11	
RICH0130	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	23	55	
RICH0131	No	00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/04/91	4	29	
RICH0132	No	00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	2	6	
RICH0134	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	23	53	
RICH0136	Yes	00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	2	6	
RICH0143	No	00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-07/30/75	0	1	
RICH0144	No	00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	2	6	
RICH0145	No	00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/04/91	4	26	
RICH0146	No	00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	10	87	
RICH0147	No	00940	CHLORIDE, TOTAL IN WATER MG/L	10/31/89-09/04/91	1	25	
RICH0149	No	00941	CHLORIDE, DISSOLVED IN WATER MG/L	04/03/86-04/03/86	0	1	
RICH0005	No	00945	SULFATE, TOTAL (MG/L AS SO4)	02/27/89-06/19/90	1	16	
RICH0011	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/07/94-12/15/98	4	54	
RICH0019	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	1	17	
RICH0027	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/12/74-12/21/78	4	20	
RICH0032	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	17	62	
RICH0036	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	1	16	
RICH0050	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	11/30/76-07/25/78	1	2	
RICH0059	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	10	
RICH0061	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/19/90-11/19/98	8	34	
RICH0064	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	10	
RICH0065	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-12/07/98	10	60	
RICH0067	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	1	16	
RICH0069	No	00945	SULFATE, TOTAL (MG/L AS SO4)	09/08/94-12/15/98	4	50	
RICH0077	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	10	
RICH0082	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/30/45-05/09/69	23	45	
RICH0084	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/04/91	4	7	
RICH0085	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/29/96-12/14/98	2	32	
RICH0091	No	00945	SULFATE, TOTAL (MG/L AS SO4)	08/06/97-12/07/98	1	9	
RICH0093	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	10	
RICH0094	No	00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	9	76	
RICH0099	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/17/83-10/17/83	0	1	
RICH0100	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	2	6	
RICH0101	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	1	14	
RICH0102	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-02/21/89	0	2	
RICH0104	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/20/94-11/23/98	4	20	
RICH0105	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	10	
RICH0106	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/24/83-10/17/83	0	2	
RICH0108	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	12	
RICH0110	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	11	
RICH0115	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	12	
RICH0116	No	00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	30	122	S
RICH0118	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	11	
RICH0119	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	11	
RICH0125	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	12	
RICH0126	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	0	11	
RICH0130	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/19/94-12/14/98	4	54	
RICH0131	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/04/91	4	29	
RICH0132	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	2	6	
RICH0134	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/21/88-12/14/98	10	51	
RICH0136	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	2	6	
RICH0144	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	2	6	
RICH0145	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/04/91	4	26	
RICH0146	No	00945	SULFATE, TOTAL (MG/L AS SO4)	01/25/89-12/07/98	9	86	
RICH0147	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/31/89-09/04/91	1	25	
RICH0149	No	00946	SULFATE, DISSOLVED (MG/L AS SO4)	04/03/86-04/03/86	0	1	
RICH0050	Yes	00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/30/76-07/25/78	1	2	
RICH0082	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/30/45-05/09/69	23	45	
RICH0084	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/13/89	2	6	
RICH0100	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	2	6	
RICH0131	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-02/05/91	3	7	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0132	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	2	6	
RICH0136	Yes	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	2	6	
RICH0144	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	2	6	
RICH0145	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-02/05/91	3	7	
RICH0147	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	02/05/91-02/05/91	0	1	
RICH0149	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/03/86-04/03/86	0	1	
RICH0005	No	00951	FLUORIDE, TOTAL (MG/L AS F)	02/27/89-06/19/90	1	16	
RICH0019	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	1	18	
RICH0036	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	1	17	
RICH0061	No	00951	FLUORIDE, TOTAL (MG/L AS F)	07/19/90-04/19/93	2	9	
RICH0065	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-04/19/93	4	27	
RICH0067	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	1	17	
RICH0094	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	4	47	
RICH0101	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	1	14	
RICH0102	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-02/21/89	0	2	
RICH0116	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-07/07/93	4	48	
RICH0134	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/21/88-03/03/93	4	27	
RICH0146	No	00951	FLUORIDE, TOTAL (MG/L AS F)	01/25/89-03/03/93	4	26	
RICH0005	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	05/23/89-06/19/90	1	13	
RICH0019	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/19/89-06/20/90	1	15	
RICH0032	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	02/13/90-12/15/98	8	258	
RICH0036	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/19/89-06/20/90	1	14	
RICH0050	Yes	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	11/30/76-07/25/78	1	2	
RICH0061	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	07/19/90-10/26/92	2	9	
RICH0065	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/19/89-01/21/93	3	24	
RICH0067	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/19/89-06/20/90	1	13	
RICH0069	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	02/13/90-12/15/98	8	256	
RICH0082	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	07/30/45-05/09/69	23	45	
RICH0084	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/08/87-09/13/89	2	6	
RICH0094	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/19/89-02/09/93	3	42	
RICH0100	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/08/87-09/12/89	2	6	
RICH0101	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/19/89-06/20/90	1	12	
RICH0116	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	08/29/84-12/15/98	14	174	
RICH0131	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/08/87-09/12/89	2	6	
RICH0132	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/08/87-09/12/89	2	6	
RICH0134	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	05/10/89-12/28/92	3	22	
RICH0136	Yes	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/08/87-09/12/89	2	6	
RICH0144	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/08/87-09/12/89	2	6	
RICH0145	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/08/87-09/12/89	2	6	
RICH0146	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	03/15/89-12/02/92	3	23	
RICH0149	No	00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/03/86-04/03/86	0	1	
RICH0039	Yes	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	0	1	
RICH0041	Yes	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	0	1	
RICH0042	Yes	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	0	1	
RICH0049	Yes	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/06/89-12/06/89	0	1	
RICH0002	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/02/72-05/27/76	4	2	
RICH0003	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/24/75-05/24/79	3	7	
RICH0005	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/24/75-03/13/85	9	8	
RICH0006	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/24/75-05/24/79	3	7	
RICH0008	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/25/75-05/15/78	2	4	
RICH0011	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/04/76-10/28/82	6	3	
RICH0015	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/02/72-05/02/72	0	1	
RICH0019	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-03/28/85	14	10	
RICH0023	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/02/72-10/28/82	10	4	
RICH0028	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-08/04/73	0	1	
RICH0029	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3	3	
RICH0032	No	01002	ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	11	5	
RICH0036	No	01002	ARSENIC, TOTAL (UG/L AS AS)	06/23/77-03/28/85	7	3	
RICH0044	Yes	01002	ARSENIC, TOTAL (UG/L AS AS)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01002	ARSENIC, TOTAL (UG/L AS AS)	12/06/89-12/06/89	0	1	
RICH0060	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/04/76-10/28/82	6	3	
RICH0061	No	01002	ARSENIC, TOTAL (UG/L AS AS)	01/17/91-04/19/93	2	10	
RICH0065	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-04/19/93	22	21	
RICH0066	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3	3	
RICH0067	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-03/28/85	11	5	
RICH0069	No	01002	ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	11	5	
RICH0079	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3	3	
RICH0080	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3	3	
RICH0081	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3	3	
RICH0083	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/08/94-08/08/94	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0084	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/04/91	3	5	
RICH0089	No	01002	ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	11	5	
RICH0094	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/06/72-04/28/93	20	18	
RICH0096	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-11/20/78	7	9	
RICH0100	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	1	4	
RICH0101	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/18/75-03/28/85	9	8	
RICH0102	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/18/75-03/28/85	9	8	
RICH0105	No	01002	ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	11	5	
RICH0116	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-04/08/93	21	19	
RICH0120	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-11/01/78	7	11	
RICH0121	No	01002	ARSENIC, TOTAL (UG/L AS AS)	10/24/79-09/03/81	1	24	
RICH0130	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-11/20/78	7	10	
RICH0131	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/04/91	3	27	
RICH0132	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	1	4	
RICH0134	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-06/01/93	22	19	
RICH0136	Yes	01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	1	4	
RICH0143	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-11/20/78	7	8	
RICH0144	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	1	4	
RICH0145	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/04/91	3	24	
RICH0146	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/13/75-06/01/93	17	14	
RICH0147	No	01002	ARSENIC, TOTAL (UG/L AS AS)	10/31/89-09/04/91	1	25	
RICH0005	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	1	2	
RICH0023	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/23/91-09/23/91	0	1	
RICH0036	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	1	2	
RICH0043	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/12/81-07/21/92	11	2	
RICH0012	No	01004	ARSENIC TOTAL IN FISH OR ANIMAL WET WT MG/KG	06/25/92-06/25/92	0	3	
RICH0129	No	01004	ARSENIC TOTAL IN FISH OR ANIMAL WET WT MG/KG	10/01/77-10/01/86	9	15	
RICH0044	Yes	01005	BARIUM, DISSOLVED (UG/L AS BA)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01005	BARIUM, DISSOLVED (UG/L AS BA)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01005	BARIUM, DISSOLVED (UG/L AS BA)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01005	BARIUM, DISSOLVED (UG/L AS BA)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01005	BARIUM, DISSOLVED (UG/L AS BA)	07/24/91-07/24/91	0	2	
RICH0039	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	0	1	
RICH0043	Yes	01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	0	1	
RICH0039	Yes	01012	BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01012	BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01012	BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	0	1	
RICH0049	Yes	01012	BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	0	1	
RICH0061	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/15/92-01/21/93	0	2	
RICH0065	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/15/92-01/21/93	0	2	
RICH0134	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	09/02/92-03/03/93	0	3	
RICH0146	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	09/02/92-03/03/93	0	3	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0043	Yes	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	07/27/92-07/27/92	0	1	
RICH0085	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	08/27/92-08/27/92	0	1	
RICH0104	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	08/27/92-08/27/92	0	1	
RICH0130	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	07/21/92-07/21/92	0	1	
RICH0146	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	07/21/92-07/21/92	0	1	
RICH0043	Yes	01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	0	1	
RICH0044	Yes	01020	BORON, DISSOLVED (UG/L AS B)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01020	BORON, DISSOLVED (UG/L AS B)	12/06/89-12/06/89	0	1	
RICH0044	Yes	01022	BORON, TOTAL (UG/L AS B)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01022	BORON, TOTAL (UG/L AS B)	12/06/89-12/06/89	0	1	
RICH0043	Yes	01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	0	1	
RICH0044	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	07/24/91-07/24/91	0	2	
RICH0084	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	0	2	
RICH0100	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	0	2	
RICH0131	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	0	2	
RICH0132	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	0	2	
RICH0136	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	0	2	
RICH0144	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	0	2	
RICH0145	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	0	2	
RICH0001	No	01027	CADMIUM, TOTAL (UG/L AS CD)	12/07/73-12/07/73	0	1	
RICH0002	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-05/27/76	4	5	
RICH0003	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/12/76-05/24/79	3	6	
RICH0005	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/24/75-03/13/85	9	8	
RICH0006	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/24/75-05/24/79	3	7	
RICH0008	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/25/75-05/15/78	2	4	
RICH0011	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/04/76-10/28/82	6	3	
RICH0015	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-08/20/72	0	4	
RICH0019	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-03/28/85	14	12	
RICH0023	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	10	7	
RICH0028	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-08/04/73	0	1	
RICH0029	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4	4	
RICH0032	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	10	7	
RICH0035	No	01027	CADMIUM, TOTAL (UG/L AS CD)	07/31/72-08/09/72	0	2	
RICH0036	No	01027	CADMIUM, TOTAL (UG/L AS CD)	06/23/77-03/28/85	7	4	
RICH0039	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	0	1	
RICH0060	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/04/76-10/28/82	6	3	
RICH0061	No	01027	CADMIUM, TOTAL (UG/L AS CD)	01/17/91-04/19/93	2	10	
RICH0065	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/19/93	22	23	
RICH0066	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4	4	
RICH0067	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-03/28/85	11	6	
RICH0069	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	10	7	
RICH0079	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4	4	
RICH0080	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4	4	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0081	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4	4	
RICH0083	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/08/94-08/08/94	0	1	
RICH0084	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/04/91	3	5	
RICH0089	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	10	7	
RICH0094	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/06/72-04/28/93	20	18	
RICH0096	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-11/20/78	7	13	
RICH0100	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/12/89	1	4	
RICH0101	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/18/75-03/28/85	9	8	
RICH0102	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/18/75-03/28/85	9	8	
RICH0105	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	10	6	
RICH0116	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/08/93	22	22	
RICH0120	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/28/71-11/01/78	7	11	
RICH0121	No	01027	CADMIUM, TOTAL (UG/L AS CD)	10/24/79-09/03/81	1	24	
RICH0130	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-11/20/78	7	13	
RICH0131	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/04/91	3	28	
RICH0132	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-04/07/90	1	6	
RICH0134	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/28/71-06/01/93	22	22	
RICH0136	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/12/89	1	4	
RICH0143	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-11/20/78	7	12	
RICH0144	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/12/89	1	4	
RICH0145	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/04/91	3	24	
RICH0146	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/13/75-06/01/93	17	15	
RICH0147	No	01027	CADMIUM, TOTAL (UG/L AS CD)	10/31/89-09/04/91	1	25	
RICH0005	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	2	
RICH0023	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/23/91-09/23/91	0	1	
RICH0036	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	2	
RICH0043	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	11	2	
RICH0005	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	2	
RICH0023	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/23/91-09/23/91	0	1	
RICH0032	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/22/93-06/22/93	0	1	
RICH0036	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	2	
RICH0043	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	11	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0044	Yes	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	07/24/91-07/24/91	0	2	
RICH0145	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	04/08/87-04/08/87	0	1	
RICH0001	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	12/07/73-12/07/73	0	1	
RICH0002	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/02/72-05/27/76	4	8	
RICH0003	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/14/73-05/24/79	6	12	
RICH0005	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/14/73-03/13/85	11	13	
RICH0006	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/21/75-05/24/79	4	10	
RICH0008	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/17/75-05/15/78	3	7	
RICH0011	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	06/04/75-10/28/82	7	7	
RICH0015	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-05/03/73	3	8	
RICH0019	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	07/15/69-03/28/85	15	21	
RICH0023	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	12	15	
RICH0028	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-12/12/73	0	3	
RICH0029	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-11/17/77	4	7	
RICH0032	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	12	15	
RICH0035	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	07/31/72-05/03/73	0	4	
RICH0036	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/26/75-03/28/85	10	5	
RICH0039	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	0	1	
RICH0060	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	06/04/75-10/28/82	7	7	
RICH0061	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	01/17/91-04/19/93	2	10	
RICH0065	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/19/93	23	32	
RICH0066	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	01/29/73-11/17/77	4	8	
RICH0067	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-03/28/85	11	9	
RICH0069	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	12	15	
RICH0079	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-11/17/77	4	7	
RICH0080	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	10/26/72-11/17/77	5	9	
RICH0081	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-11/17/77	4	7	
RICH0083	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	08/08/94-08/08/94	0	1	
RICH0084	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/04/91	3	5	
RICH0089	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	12	15	
RICH0094	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/06/72-04/28/93	20	23	
RICH0096	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/20/78	8	22	
RICH0100	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/12/89	1	4	
RICH0101	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	10/26/72-03/28/85	12	14	
RICH0102	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/75-03/28/85	10	11	
RICH0103	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	10/26/72-01/29/73	0	2	
RICH0105	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	12	14	
RICH0116	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/08/93	23	32	
RICH0120	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/01/78	8	19	
RICH0121	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	10/24/79-09/03/81	1	23	
RICH0130	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/20/78	8	23	
RICH0131	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/04/91	3	29	
RICH0132	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-04/07/90	1	6	
RICH0134	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-06/01/93	23	32	
RICH0136	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/12/89	1	4	
RICH0143	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/20/78	8	22	
RICH0144	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/12/89	1	4	
RICH0145	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/04/91	3	24	
RICH0146	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/20/75-06/01/93	18	17	
RICH0147	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	10/31/89-09/04/91	1	25	
RICH0039	Yes	01037	COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01037	COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01037	COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	0	1	
RICH0049	Yes	01037	COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	0	1	
RICH0084	No	01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/13/89	1	4	
RICH0100	No	01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	1	4	
RICH0131	No	01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-10/31/89	1	5	
RICH0132	No	01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	1	4	
RICH0136	Yes	01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	1	4	
RICH0144	No	01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	1	4	
RICH0145	No	01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-10/31/89	1	5	
RICH0147	No	01037	COBALT, TOTAL (UG/L AS CO)	10/31/89-10/31/89	0	1	
RICH0044	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	12/06/89-07/24/91	1	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0047	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	07/24/91-07/24/91	0	2	
RICH0084	No	01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	0	2	
RICH0100	No	01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	0	2	
RICH0131	No	01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	0	2	
RICH0132	No	01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	0	2	
RICH0136	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	0	2	
RICH0144	No	01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	0	2	
RICH0145	No	01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	0	2	
RICH0001	No	01042	COPPER, TOTAL (UG/L AS CU)	12/07/73-12/07/73	0	1	
RICH0002	No	01042	COPPER, TOTAL (UG/L AS CU)	05/02/72-05/27/76	4	8	
RICH0003	No	01042	COPPER, TOTAL (UG/L AS CU)	05/14/73-05/24/79	6	12	
RICH0005	No	01042	COPPER, TOTAL (UG/L AS CU)	05/14/73-03/13/85	11	13	
RICH0006	No	01042	COPPER, TOTAL (UG/L AS CU)	03/21/75-05/24/79	4	10	
RICH0008	No	01042	COPPER, TOTAL (UG/L AS CU)	03/17/75-05/15/78	3	7	
RICH0011	No	01042	COPPER, TOTAL (UG/L AS CU)	06/04/75-10/28/82	7	7	
RICH0015	No	01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-05/03/73	3	8	
RICH0019	No	01042	COPPER, TOTAL (UG/L AS CU)	07/15/69-03/28/85	15	20	
RICH0023	No	01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	12	15	
RICH0028	No	01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-12/12/73	0	3	
RICH0029	No	01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-11/17/77	4	7	
RICH0032	No	01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	12	15	
RICH0035	No	01042	COPPER, TOTAL (UG/L AS CU)	07/31/72-05/03/73	0	4	
RICH0036	No	01042	COPPER, TOTAL (UG/L AS CU)	03/26/75-03/28/85	10	5	
RICH0039	Yes	01042	COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01042	COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01042	COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01042	COPPER, TOTAL (UG/L AS CU)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01042	COPPER, TOTAL (UG/L AS CU)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01042	COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	0	1	
RICH0060	No	01042	COPPER, TOTAL (UG/L AS CU)	06/04/75-10/28/82	7	7	
RICH0061	No	01042	COPPER, TOTAL (UG/L AS CU)	01/17/91-04/19/93	2	10	
RICH0065	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/19/93	23	31	
RICH0066	No	01042	COPPER, TOTAL (UG/L AS CU)	01/29/73-11/17/77	4	8	
RICH0067	No	01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-03/28/85	11	9	
RICH0069	No	01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	12	15	
RICH0079	No	01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-11/17/77	4	7	
RICH0080	No	01042	COPPER, TOTAL (UG/L AS CU)	10/26/72-11/17/77	5	9	
RICH0081	No	01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-11/17/77	4	7	
RICH0083	No	01042	COPPER, TOTAL (UG/L AS CU)	08/08/94-08/08/94	0	1	
RICH0084	No	01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/04/91	3	5	
RICH0089	No	01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	12	15	
RICH0094	No	01042	COPPER, TOTAL (UG/L AS CU)	05/06/72-04/28/93	20	23	
RICH0096	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/20/78	8	21	
RICH0100	No	01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	1	4	
RICH0101	No	01042	COPPER, TOTAL (UG/L AS CU)	10/26/72-03/28/85	12	13	
RICH0102	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/75-03/28/85	10	10	
RICH0103	No	01042	COPPER, TOTAL (UG/L AS CU)	10/26/72-01/29/73	0	2	
RICH0105	No	01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	12	14	
RICH0116	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/08/93	23	31	
RICH0120	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/01/78	8	19	
RICH0121	No	01042	COPPER, TOTAL (UG/L AS CU)	10/24/79-09/03/81	1	24	
RICH0130	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/20/78	8	22	
RICH0131	No	01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/04/91	3	27	
RICH0132	No	01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	1	4	
RICH0134	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-06/01/93	23	31	
RICH0136	Yes	01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	1	4	
RICH0143	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/20/78	8	21	
RICH0144	No	01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	1	4	
RICH0145	No	01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/04/91	3	24	
RICH0146	No	01042	COPPER, TOTAL (UG/L AS CU)	03/20/75-06/01/93	18	16	
RICH0147	No	01042	COPPER, TOTAL (UG/L AS CU)	10/31/89-09/04/91	1	25	
RICH0005	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	1	2	
RICH0023	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/23/91-09/23/91	0	1	
RICH0036	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	1	2	
RICH0043	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0052	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	05/12/81-07/21/92	11	2	
RICH0003	No	01045	IRON, TOTAL (UG/L AS FE)	11/02/78-05/24/79	0	2	
RICH0005	No	01045	IRON, TOTAL (UG/L AS FE)	05/24/79-05/24/79	0	1	
RICH0006	No	01045	IRON, TOTAL (UG/L AS FE)	11/02/78-05/24/79	0	2	
RICH0019	No	01045	IRON, TOTAL (UG/L AS FE)	07/15/69-04/28/71	1	4	
RICH0029	No	01045	IRON, TOTAL (UG/L AS FE)	11/17/77-11/17/77	0	1	
RICH0044	Yes	01045	IRON, TOTAL (UG/L AS FE)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01045	IRON, TOTAL (UG/L AS FE)	12/06/89-12/06/89	0	1	
RICH0061	No	01045	IRON, TOTAL (UG/L AS FE)	01/17/91-04/19/93	2	10	
RICH0065	No	01045	IRON, TOTAL (UG/L AS FE)	06/29/70-04/19/93	22	13	
RICH0083	No	01045	IRON, TOTAL (UG/L AS FE)	04/29/80-08/08/94	14	10	
RICH0084	No	01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/04/91	4	7	
RICH0094	No	01045	IRON, TOTAL (UG/L AS FE)	11/01/78-04/28/93	14	10	
RICH0096	No	01045	IRON, TOTAL (UG/L AS FE)	06/29/70-11/20/78	8	4	
RICH0100	No	01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0101	No	01045	IRON, TOTAL (UG/L AS FE)	11/01/78-11/01/78	0	1	
RICH0102	No	01045	IRON, TOTAL (UG/L AS FE)	11/01/78-11/01/78	0	1	
RICH0116	No	01045	IRON, TOTAL (UG/L AS FE)	06/29/70-04/08/93	22	12	
RICH0120	No	01045	IRON, TOTAL (UG/L AS FE)	04/28/71-11/01/78	7	2	
RICH0130	No	01045	IRON, TOTAL (UG/L AS FE)	06/29/70-11/20/78	8	4	
RICH0131	No	01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/04/91	4	29	
RICH0132	No	01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0134	No	01045	IRON, TOTAL (UG/L AS FE)	06/29/70-06/01/93	22	11	
RICH0136	Yes	01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0143	No	01045	IRON, TOTAL (UG/L AS FE)	06/29/70-11/20/78	8	4	
RICH0144	No	01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0145	No	01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/04/91	4	26	
RICH0146	No	01045	IRON, TOTAL (UG/L AS FE)	11/20/78-06/01/93	14	9	
RICH0147	No	01045	IRON, TOTAL (UG/L AS FE)	10/31/89-09/04/91	1	25	
RICH0044	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	12/06/89-07/24/91	1	2	
RICH0050	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	11/30/76-07/25/78	1	2	
RICH0051	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	07/24/91-07/24/91	0	2	
RICH0082	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/09/69-05/09/69	0	1	
RICH0084	No	01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/04/91	4	7	
RICH0100	No	01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0131	No	01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/04/91	4	29	
RICH0132	No	01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0136	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0144	No	01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	2	6	
RICH0145	No	01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/04/91	4	26	
RICH0147	No	01046	IRON, DISSOLVED (UG/L AS FE)	10/31/89-09/04/91	1	25	
RICH0044	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	07/24/91-07/24/91	0	2	
RICH0084	No	01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	0	2	
RICH0100	No	01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	0	2	
RICH0131	No	01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	0	2	
RICH0132	No	01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	0	2	
RICH0136	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	0	2	
RICH0144	No	01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	0	2	
RICH0145	No	01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	0	2	
RICH0001	No	01051	LEAD, TOTAL (UG/L AS PB)	12/07/73-12/07/73	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0002	No	01051	LEAD, TOTAL (UG/L AS PB)	05/02/72-05/27/76	4	7	
RICH0003	No	01051	LEAD, TOTAL (UG/L AS PB)	12/07/73-05/24/79	5	10	
RICH0005	No	01051	LEAD, TOTAL (UG/L AS PB)	12/07/73-03/13/85	11	11	
RICH0006	No	01051	LEAD, TOTAL (UG/L AS PB)	03/21/75-05/24/79	4	9	
RICH0008	No	01051	LEAD, TOTAL (UG/L AS PB)	03/17/75-05/15/78	3	7	
RICH0011	No	01051	LEAD, TOTAL (UG/L AS PB)	06/04/75-10/28/82	7	7	
RICH0015	No	01051	LEAD, TOTAL (UG/L AS PB)	05/02/72-10/04/72	0	5	
RICH0019	No	01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-03/28/85	14	18	
RICH0023	No	01051	LEAD, TOTAL (UG/L AS PB)	05/02/72-10/28/82	10	12	
RICH0028	No	01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-12/12/73	0	2	
RICH0029	No	01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-06/23/77	3	5	
RICH0032	No	01051	LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	11	13	
RICH0035	No	01051	LEAD, TOTAL (UG/L AS PB)	07/31/72-10/04/72	0	3	
RICH0036	No	01051	LEAD, TOTAL (UG/L AS PB)	03/26/75-03/28/85	10	5	
RICH0039	Yes	01051	LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01051	LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01051	LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01051	LEAD, TOTAL (UG/L AS PB)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01051	LEAD, TOTAL (UG/L AS PB)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01051	LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	0	1	
RICH0060	No	01051	LEAD, TOTAL (UG/L AS PB)	06/04/75-10/28/82	7	7	
RICH0061	No	01051	LEAD, TOTAL (UG/L AS PB)	01/17/91-04/19/93	2	10	
RICH0065	No	01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/19/93	22	30	
RICH0066	No	01051	LEAD, TOTAL (UG/L AS PB)	01/29/73-11/17/77	4	7	
RICH0067	No	01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-03/28/85	11	8	
RICH0069	No	01051	LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	11	13	
RICH0079	No	01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-11/17/77	4	6	
RICH0080	No	01051	LEAD, TOTAL (UG/L AS PB)	10/26/72-11/17/77	5	9	
RICH0081	No	01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-11/17/77	4	6	
RICH0083	No	01051	LEAD, TOTAL (UG/L AS PB)	08/08/94-08/08/94	0	1	
RICH0084	No	01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/04/91	3	5	
RICH0089	No	01051	LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	11	13	
RICH0094	No	01051	LEAD, TOTAL (UG/L AS PB)	05/06/72-04/28/93	20	23	
RICH0096	No	01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	8	18	
RICH0100	No	01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	1	4	
RICH0101	No	01051	LEAD, TOTAL (UG/L AS PB)	10/26/72-03/28/85	12	14	
RICH0102	No	01051	LEAD, TOTAL (UG/L AS PB)	03/24/75-03/28/85	10	10	
RICH0103	No	01051	LEAD, TOTAL (UG/L AS PB)	10/26/72-01/29/73	0	2	
RICH0105	No	01051	LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	11	12	
RICH0116	No	01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/08/93	22	30	
RICH0120	No	01051	LEAD, TOTAL (UG/L AS PB)	03/15/71-11/01/78	7	19	
RICH0121	No	01051	LEAD, TOTAL (UG/L AS PB)	10/24/79-09/03/81	1	24	
RICH0130	No	01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	8	20	
RICH0131	No	01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/04/91	3	26	
RICH0132	No	01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	1	4	
RICH0134	No	01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-06/01/93	22	28	
RICH0136	Yes	01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	1	4	
RICH0143	No	01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	8	18	
RICH0144	No	01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	1	4	
RICH0145	No	01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/04/91	3	24	
RICH0146	No	01051	LEAD, TOTAL (UG/L AS PB)	03/20/75-06/01/93	18	17	
RICH0147	No	01051	LEAD, TOTAL (UG/L AS PB)	10/31/89-09/04/91	1	25	
RICH0005	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	1	2	
RICH0023	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/23/91-09/23/91	0	1	
RICH0036	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	1	2	
RICH0043	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	04/19/95-04/19/95	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0116	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	05/12/81-07/21/92	11	2	
RICH0043	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/12/97-09/12/97	0	1	
RICH0085	No	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	11/10/97-11/10/97	0	1	
RICH0104	No	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	04/19/95-04/19/95	0	1	
RICH0130	No	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	02/15/95-11/10/97	2	2	
RICH0003	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/02/78-05/24/79	0	2	
RICH0005	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/24/79-05/24/79	0	1	
RICH0006	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/02/78-05/24/79	0	2	
RICH0015	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	0	1	
RICH0019	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-04/28/71	1	3	
RICH0023	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	0	1	
RICH0032	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	0	1	
RICH0044	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	12/06/89-12/06/89	0	1	
RICH0061	No	01055	MANGANESE, TOTAL (UG/L AS MN)	01/17/91-04/19/93	2	10	
RICH0065	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-04/19/93	23	13	
RICH0069	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	0	1	
RICH0083	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/29/80-08/08/94	14	10	
RICH0084	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/04/91	4	7	
RICH0089	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	0	1	
RICH0094	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/01/78-04/28/93	14	10	
RICH0096	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/20/78	8	4	
RICH0100	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	2	6	
RICH0101	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/01/78-11/01/78	0	1	
RICH0102	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/01/78-11/01/78	0	1	
RICH0105	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	0	1	
RICH0116	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-04/08/93	23	12	
RICH0120	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/01/78	8	3	
RICH0130	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/20/78	8	4	
RICH0131	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/04/91	4	29	
RICH0132	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	2	6	
RICH0134	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-06/01/93	23	12	
RICH0136	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	2	6	
RICH0143	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/20/78	8	4	
RICH0144	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	2	6	
RICH0145	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/04/91	4	26	
RICH0146	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/20/78-06/01/93	14	9	
RICH0147	No	01055	MANGANESE, TOTAL (UG/L AS MN)	10/31/89-09/04/91	1	25	
RICH0044	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	07/24/91-07/24/91	0	2	
RICH0084	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/04/91	4	7	
RICH0100	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/12/89	2	5	
RICH0131	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-04/02/91	3	15	
RICH0132	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-04/12/88	1	3	
RICH0136	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/12/89	2	6	
RICH0144	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-04/04/89	1	4	
RICH0145	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/04/91	4	22	
RICH0147	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	10/31/89-07/28/91	1	11	
RICH0149	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/03/86-04/03/86	0	1	
RICH0039	Yes	01059	THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01059	THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01059	THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	0	1	
RICH0049	Yes	01059	THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	0	1	
RICH0061	No	01059	THALLIUM, TOTAL (UG/L AS TL)	07/15/92-01/21/93	0	2	
RICH0065	No	01059	THALLIUM, TOTAL (UG/L AS TL)	07/15/92-01/21/93	0	2	
RICH0134	No	01059	THALLIUM, TOTAL (UG/L AS TL)	09/02/92-03/03/93	0	3	
RICH0146	No	01059	THALLIUM, TOTAL (UG/L AS TL)	09/02/92-03/03/93	0	3	
RICH0044	Yes	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	07/24/91-07/24/91	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0053	Yes	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	07/24/91-07/24/91	0	2	
RICH0044	Yes	01062	MOLYBDENUM, TOTAL (UG/L AS MO)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01062	MOLYBDENUM, TOTAL (UG/L AS MO)	12/06/89-12/06/89	0	1	
RICH0043	Yes	01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	0	1	
RICH0001	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	12/07/73-12/07/73	0	1	
RICH0002	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/27/76	3	3	
RICH0003	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/14/73-05/24/79	6	11	
RICH0005	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/14/73-05/24/79	6	10	
RICH0006	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/21/75-05/24/79	4	10	
RICH0008	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/17/75-05/15/78	3	7	
RICH0011	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	06/04/75-05/22/78	2	3	
RICH0015	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/03/73	0	1	
RICH0019	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	4	6	
RICH0023	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	5	4	
RICH0028	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-08/04/73	0	2	
RICH0029	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	4	6	
RICH0032	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	5	4	
RICH0035	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/03/73	0	1	
RICH0036	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/26/75-11/17/77	2	3	
RICH0044	Yes	01065	NICKEL, DISSOLVED (UG/L AS NI)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01065	NICKEL, DISSOLVED (UG/L AS NI)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01065	NICKEL, DISSOLVED (UG/L AS NI)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01065	NICKEL, DISSOLVED (UG/L AS NI)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01065	NICKEL, DISSOLVED (UG/L AS NI)	07/24/91-07/24/91	0	2	
RICH0060	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	06/04/75-05/22/78	2	3	
RICH0065	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	4	7	
RICH0066	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	4	7	
RICH0067	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	4	6	
RICH0069	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	5	4	
RICH0079	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	4	6	
RICH0080	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	4	7	
RICH0081	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	4	6	
RICH0089	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	5	4	
RICH0094	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/01/78	5	9	
RICH0096	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	5	9	
RICH0101	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/01/78	5	9	
RICH0102	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/24/75-11/01/78	3	8	
RICH0103	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-01/29/73	0	1	
RICH0105	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	5	4	
RICH0116	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/01/78	5	9	
RICH0120	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/24/73-11/01/78	5	9	
RICH0130	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	5	10	
RICH0134	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	5	10	
RICH0143	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	5	9	
RICH0146	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/20/75-11/20/78	3	7	
RICH0005	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/04/82-03/13/85	2	2	
RICH0011	No	01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	0	4	
RICH0019	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2	2	
RICH0023	No	01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	0	4	
RICH0032	No	01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	0	4	
RICH0036	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2	2	
RICH0039	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	0	1	
RICH0060	No	01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	0	4	
RICH0061	No	01067	NICKEL, TOTAL (UG/L AS NI)	01/17/91-04/19/93	2	10	
RICH0065	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-04/19/93	10	12	
RICH0067	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2	2	
RICH0069	No	01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	0	4	
RICH0083	No	01067	NICKEL, TOTAL (UG/L AS NI)	08/08/94-08/08/94	0	1	
RICH0084	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/04/91	3	5	
RICH0089	No	01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	0	4	
RICH0094	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-04/28/93	10	11	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0100	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/12/89	1	4	
RICH0101	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2	2	
RICH0102	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2	2	
RICH0105	No	01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	0	4	
RICH0116	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-04/08/93	10	10	
RICH0121	No	01067	NICKEL, TOTAL (UG/L AS NI)	10/24/79-09/03/81	1	24	
RICH0131	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/04/91	3	28	
RICH0132	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-04/07/90	1	6	
RICH0134	No	01067	NICKEL, TOTAL (UG/L AS NI)	06/28/82-06/01/93	10	10	
RICH0136	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/12/89	1	4	
RICH0144	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/12/89	1	4	
RICH0145	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/04/91	3	23	
RICH0146	No	01067	NICKEL, TOTAL (UG/L AS NI)	06/29/82-06/01/93	10	10	
RICH0147	No	01067	NICKEL, TOTAL (UG/L AS NI)	10/31/89-09/04/91	1	22	
RICH0005	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	2	
RICH0023	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/23/91-09/23/91	0	1	
RICH0036	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	2	
RICH0043	Yes	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	11	2	
RICH0012	No	01069	NICKEL, TOTAL IN FISH OR ANIMALS-WET WEIGHT MG/KG	06/25/92-06/25/92	0	3	
RICH0012	No	01073	THALLIUM, TISSUE, WET WEIGHT, MG/KG	06/25/92-06/25/92	0	3	
RICH0039	Yes	01077	SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01077	SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01077	SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	0	1	
RICH0049	Yes	01077	SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	0	1	
RICH0121	No	01077	SILVER, TOTAL (UG/L AS AG)	10/24/79-09/03/81	1	24	
RICH0061	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	07/27/92-07/27/92	0	1	
RICH0085	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	11/10/97-11/10/97	0	1	
RICH0104	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	04/19/95-04/19/95	0	1	
RICH0130	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	07/21/92-07/21/92	0	1	
RICH0146	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	07/21/92-07/21/92	0	1	
RICH0044	Yes	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	12/06/89-12/06/89	0	1	
RICH0044	Yes	01082	STRONTIUM, TOTAL (UG/L AS SR)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01082	STRONTIUM, TOTAL (UG/L AS SR)	12/06/89-12/06/89	0	1	
RICH0043	Yes	01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	0	1	
RICH0044	Yes	01085	VANADIUM, DISSOLVED (UG/L AS V)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01085	VANADIUM, DISSOLVED (UG/L AS V)	12/06/89-12/06/89	0	1	
RICH0039	Yes	01087	VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01087	VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01087	VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01087	VANADIUM, TOTAL (UG/L AS V)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01087	VANADIUM, TOTAL (UG/L AS V)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01087	VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	0	1	
RICH0043	Yes	01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	0	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0048	Yes	01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	0	1	
RICH0044	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	07/24/91-07/24/91	0	2	
RICH0084	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	0	2	
RICH0100	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	0	2	
RICH0131	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	0	2	
RICH0132	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	0	2	
RICH0136	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	0	2	
RICH0144	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	0	2	
RICH0145	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	0	2	
RICH0001	No	01092	ZINC, TOTAL (UG/L AS ZN)	12/07/73-12/07/73	0	1	
RICH0002	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/02/72-05/27/76	4	8	
RICH0003	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/14/73-05/24/79	6	12	
RICH0005	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/14/73-03/13/85	11	12	
RICH0006	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/21/75-05/24/79	4	10	
RICH0008	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/17/75-05/15/78	3	7	
RICH0011	No	01092	ZINC, TOTAL (UG/L AS ZN)	06/04/75-10/28/82	7	7	
RICH0015	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-05/03/73	3	8	
RICH0019	No	01092	ZINC, TOTAL (UG/L AS ZN)	07/15/69-03/28/85	15	21	
RICH0023	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	12	15	
RICH0028	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-12/12/73	0	3	
RICH0029	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-11/17/77	4	7	
RICH0032	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	12	15	
RICH0035	No	01092	ZINC, TOTAL (UG/L AS ZN)	07/31/72-05/03/73	0	4	
RICH0036	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/26/75-03/28/85	10	5	
RICH0039	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	0	1	
RICH0060	No	01092	ZINC, TOTAL (UG/L AS ZN)	06/04/75-10/28/82	7	7	
RICH0061	No	01092	ZINC, TOTAL (UG/L AS ZN)	01/17/91-04/19/93	2	10	
RICH0065	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/19/93	23	32	
RICH0066	No	01092	ZINC, TOTAL (UG/L AS ZN)	01/29/73-11/17/77	4	8	
RICH0067	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-03/28/85	11	9	
RICH0069	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	12	15	
RICH0079	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-11/17/77	4	7	
RICH0080	No	01092	ZINC, TOTAL (UG/L AS ZN)	10/26/72-11/17/77	5	9	
RICH0081	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-11/17/77	4	7	
RICH0083	No	01092	ZINC, TOTAL (UG/L AS ZN)	08/08/94-08/08/94	0	1	
RICH0084	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/04/91	3	5	
RICH0089	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	12	15	
RICH0094	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/06/72-04/28/93	20	23	
RICH0096	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/20/78	8	22	
RICH0100	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	1	4	
RICH0101	No	01092	ZINC, TOTAL (UG/L AS ZN)	10/26/72-03/28/85	12	14	
RICH0102	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/75-03/28/85	10	11	
RICH0103	No	01092	ZINC, TOTAL (UG/L AS ZN)	10/26/72-01/29/73	0	2	
RICH0105	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	12	14	
RICH0116	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/08/93	23	32	
RICH0120	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/01/78	8	19	
RICH0121	No	01092	ZINC, TOTAL (UG/L AS ZN)	10/24/79-09/03/81	1	24	
RICH0130	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/20/78	8	23	
RICH0131	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/04/91	3	27	
RICH0132	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	1	4	
RICH0134	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-06/01/93	23	32	
RICH0136	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	1	4	
RICH0143	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/20/78	8	22	
RICH0144	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	1	4	
RICH0145	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/04/91	3	24	
RICH0146	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/20/75-06/01/93	18	17	
RICH0147	No	01092	ZINC, TOTAL (UG/L AS ZN)	10/31/89-09/04/91	1	25	
RICH0005	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	1	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0023	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/23/91-09/23/91	0	1	
RICH0036	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	1	2	
RICH0061	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	05/12/81-07/21/92	11	2	
RICH0039	Yes	01097	ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01097	ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01097	ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	0	1	
RICH0049	Yes	01097	ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	0	1	
RICH0061	No	01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	09/12/97-09/12/97	0	1	
RICH0085	No	01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	11/10/97-11/10/97	0	1	
RICH0104	No	01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	04/19/95-04/19/95	0	1	
RICH0130	No	01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	02/15/95-11/10/97	2	2	
RICH0039	Yes	01102	TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01102	TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01102	TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	0	1	
RICH0049	Yes	01102	TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	12/06/89-12/06/89	0	1	
RICH0149	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	04/03/86-04/03/86	0	1	
RICH0044	Yes	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	12/06/89-07/24/91	1	2	
RICH0047	Yes	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	12/06/89-07/24/91	1	2	
RICH0051	Yes	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	07/24/91-07/24/91	0	1	
RICH0053	Yes	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	07/24/91-07/24/91	0	1	
RICH0054	Yes	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	07/24/91-07/24/91	0	2	
RICH0043	Yes	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/12/97-09/12/97	0	1	
RICH0085	No	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	11/10/97-11/10/97	0	1	
RICH0104	No	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	04/19/95-04/19/95	0	1	
RICH0130	No	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	02/15/95-11/10/97	2	2	
RICH0099	No	01130	LITHIUM, DISSOLVED (UG/L AS LI)	10/17/83-10/17/83	0	1	
RICH0106	No	01130	LITHIUM, DISSOLVED (UG/L AS LI)	10/17/83-10/17/83	0	1	
RICH0032	No	01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	4	154	
RICH0044	Yes	01140	SILICON, DISSOLVED (UG/L AS SI)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01140	SILICON, DISSOLVED (UG/L AS SI)	12/06/89-12/06/89	0	1	
RICH0069	No	01140	SILICON, DISSOLVED (UG/L AS SI)	06/29/88-04/13/89	0	33	
RICH0116	No	01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	4	78	
RICH0044	Yes	01142	SILICON, TOTAL (UG/L AS SI)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01142	SILICON, TOTAL (UG/L AS SI)	12/06/89-12/06/89	0	1	
RICH0044	Yes	01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/06/89-12/06/89	0	1	
RICH0039	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	0	1	
RICH0041	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	0	1	
RICH0042	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	0	1	
RICH0044	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	12/06/89-12/06/89	0	1	
RICH0049	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	0	1	
RICH0061	No	01147	SELENIUM, TOTAL (UG/L AS SE)	01/17/91-04/19/93	2	10	
RICH0065	No	01147	SELENIUM, TOTAL (UG/L AS SE)	01/17/91-04/19/93	2	10	
RICH0083	No	01147	SELENIUM, TOTAL (UG/L AS SE)	08/08/94-08/08/94	0	1	
RICH0084	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/13/89	1	4	
RICH0094	No	01147	SELENIUM, TOTAL (UG/L AS SE)	10/25/90-04/28/93	2	8	
RICH0100	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	1	4	
RICH0116	No	01147	SELENIUM, TOTAL (UG/L AS SE)	01/14/91-04/08/93	2	7	
RICH0131	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-10/31/89	1	5	
RICH0132	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	1	4	
RICH0134	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/13/91-06/01/93	2	8	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0136	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	1	4	
RICH0144	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	1	4	
RICH0145	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-01/25/90	1	6	
RICH0146	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/13/91-06/01/93	2	8	
RICH0147	No	01147	SELENIUM, TOTAL (UG/L AS SE)	10/31/89-10/31/89	0	1	
RICH0012	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	06/25/92-06/25/92	0	1	
RICH0043	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	0	1	
RICH0061	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	07/27/92-07/27/92	0	1	
RICH0085	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	08/27/92-08/27/92	0	1	
RICH0104	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	08/27/92-08/27/92	0	1	
RICH0130	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	07/21/92-07/21/92	0	1	
RICH0146	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	07/21/92-07/21/92	0	1	
RICH0012	No	01149	SELENIUM, TOTAL IN FISH OR ANIMALS WET WGT MG/KG	06/25/92-06/25/92	0	3	
RICH0129	No	01149	SELENIUM, TOTAL IN FISH OR ANIMALS WET WGT MG/KG	10/01/77-10/01/86	9	15	
RICH0044	Yes	01150	TITANIUM, DISSOLVED (UG/L AS TI)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01150	TITANIUM, DISSOLVED (UG/L AS TI)	12/06/89-12/06/89	0	1	
RICH0044	Yes	01152	TITANIUM, TOTAL (UG/L AS TI)	12/06/89-12/06/89	0	1	
RICH0047	Yes	01152	TITANIUM, TOTAL (UG/L AS TI)	12/06/89-12/06/89	0	1	
RICH0043	Yes	01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	0	1	
RICH0045	Yes	01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	0	2	
RICH0048	Yes	01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	0	1	
RICH0052	Yes	01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	0	1	
RICH0055	Yes	01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	0	1	
RICH0056	Yes	01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	0	1	
RICH0061	No	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/12/97-09/12/97	0	1	
RICH0085	No	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	11/10/97-11/10/97	0	1	
RICH0104	No	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	04/19/95-04/19/95	0	1	
RICH0130	No	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	02/15/95-11/10/97	2	2	
RICH0005	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	04/18/90-04/18/90	0	1	
RICH0011	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0015	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0017	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0019	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	12/19/89-01/25/90	0	2	
RICH0020	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0021	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0025	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	06/04/97-06/04/97	0	1	
RICH0026	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0032	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0034	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0036	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	12/19/89-01/25/90	0	2	
RICH0038	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	06/04/97-06/04/97	0	1	
RICH0046	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	06/04/97-06/04/97	0	1	
RICH0059	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0061	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	01/17/90-11/19/98	8	36	
RICH0064	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0065	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	12/19/89-12/07/98	8	42	
RICH0067	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	12/19/89-01/25/90	0	2	
RICH0069	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	11/18/97-11/18/97	0	1	
RICH0074	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	06/04/97-06/04/97	0	1	
RICH0077	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0078	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	06/04/97-06/04/97	0	1	
RICH0085	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/19/94-12/14/98	4	34	
RICH0086	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	06/04/97-06/04/97	0	1	
RICH0091	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/06/97-12/07/98	1	9	
RICH0093	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0094	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	12/19/89-12/07/98	8	42	
RICH0096	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/19/94-10/19/94	0	3	
RICH0101	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	01/25/90-01/25/90	0	1	
RICH0104	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/20/94-11/23/98	4	19	
RICH0105	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	08/11/98-08/11/98	0	1	
RICH0107	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	09/20/95-10/26/98	3	35	
RICH0108	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/28/94-10/26/98	4	48	
RICH0110	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/28/94-10/26/98	4	47	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0112	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	09/20/95-10/26/98	3	35	
RICH0114	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	09/20/95-10/26/98	3	34	
RICH0115	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/28/94-06/16/98	3	16	
RICH0116	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	12/19/89-12/15/98	8	83	
RICH0118	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/28/94-10/26/98	4	45	
RICH0119	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/28/94-09/29/98	4	37	
RICH0124	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	09/20/95-10/26/98	3	34	
RICH0125	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/28/94-10/26/98	4	48	
RICH0126	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/28/94-10/26/98	4	46	
RICH0127	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	09/20/95-10/26/98	3	35	
RICH0130	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/19/94-12/14/98	4	55	
RICH0133	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/19/94-10/19/94	0	3	
RICH0134	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	01/10/90-12/14/98	8	33	
RICH0140	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	07/19/94-10/19/94	0	2	
RICH0146	No	01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	01/10/90-12/07/98	8	68	
RICH0102	No	02152	INVALID PARAMETER	05/18/82-05/18/82	0	1	
RICH0067	No	05053	INVALID PARAMETER	08/15/79-08/15/79	0	1	
RICH0067	No	05109	INVALID PARAMETER	08/15/79-08/15/79	0	1	
RICH0027	No	31501	COLIFORM,TOT,MEMBRANE FILTER,IMMED,M-ENDO MED,35C	06/12/74-11/04/76	2	60	
RICH0011	No	31503	COLIFORM,TOT,MEMBR FILTER,DELA YED,M-ENDO MED,35 C	05/26/74-05/26/74	0	1	
RICH0015	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	2	13	
RICH0018	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/27/68-11/04/71	3	24	
RICH0019	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/28/68-10/27/70	2	15	
RICH0023	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	2	13	
RICH0032	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	2	13	
RICH0065	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/28/68-10/27/70	2	15	
RICH0069	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	2	13	
RICH0070	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-11/04/71	3	23	
RICH0089	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/08/68-09/09/70	2	13	
RICH0092	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-11/04/71	3	24	
RICH0094	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	02/03/69-07/24/69	0	2	
RICH0096	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	09/20/67-10/28/77	10	19	
RICH0105	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-05/04/76	7	15	
RICH0116	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	02/18/68-05/26/74	6	18	
RICH0120	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/18/68-07/09/70	2	10	
RICH0122	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	05/05/69-11/04/71	2	5	
RICH0130	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	09/20/67-10/28/77	10	18	
RICH0134	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	09/20/67-10/28/77	10	18	
RICH0143	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	09/20/67-10/28/77	10	18	
RICH0146	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	10/28/77-10/28/77	0	1	
RICH0011	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-10/03/83	0	4	
RICH0023	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	0	3	
RICH0032	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	09/20/83-07/08/86	2	54	
RICH0060	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	0	3	
RICH0064	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	09/20/83-10/03/83	0	2	
RICH0069	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	0	3	
RICH0089	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-09/20/83	0	2	
RICH0113	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	0	3	
RICH0116	No	31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-07/08/86	2	26	
RICH0032	No	31614	FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	0	5	
RICH0069	No	31614	FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	0	4	
RICH0116	No	31614	FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	0	4	
RICH0011	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	4	106	
RICH0015	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	4	51	
RICH0017	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	4	52	
RICH0018	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	05/11/71-11/04/71	0	9	
RICH0020	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	4	52	
RICH0021	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	4	52	
RICH0026	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	4	52	
RICH0032	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	4	107	
RICH0034	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	4	51	
RICH0059	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	4	52	
RICH0061	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/12/94-11/19/98	4	21	
RICH0064	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	4	52	
RICH0065	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	10/04/94-12/07/98	4	29	
RICH0069	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	4	53	
RICH0070	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/14/71-11/04/71	0	8	
RICH0077	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	4	53	
RICH0085	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	05/29/96-12/14/98	2	32	
RICH0091	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	08/06/97-12/07/98	1	9	
RICH0092	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	05/11/71-11/04/71	0	9	
RICH0093	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	4	53	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0094	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/12/94-12/07/98	4	21	
RICH0104	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/20/94-11/23/98	4	18	
RICH0105	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	4	53	
RICH0107	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	3	39	
RICH0108	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	4	56	
RICH0110	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	4	56	
RICH0112	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	3	38	
RICH0114	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	3	38	
RICH0115	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	4	56	
RICH0116	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	4	111	
RICH0118	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	4	55	
RICH0119	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	4	55	
RICH0122	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	10/19/71-11/04/71	0	4	
RICH0124	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	3	38	
RICH0125	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	4	56	
RICH0126	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	4	55	
RICH0127	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	3	39	
RICH0130	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	4	53	
RICH0134	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/02/97-12/14/98	1	18	
RICH0146	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	4	54	
RICH0001	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/28/73-11/25/74	0	10	
RICH0002	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/02/72-03/24/78	5	35	
RICH0003	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	6	66	
RICH0005	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	17	180	
RICH0006	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	5	52	
RICH0008	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/10/74-06/12/79	4	39	
RICH0010	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-09/19/73	0	4	
RICH0011	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/26/74-07/07/94	20	42	
RICH0015	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	12	29	
RICH0018	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/02/71-11/02/71	0	1	
RICH0019	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	19	197	A
RICH0023	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	12	63	
RICH0027	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	03/12/74-10/05/77	3	88	
RICH0028	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-01/10/74	0	8	
RICH0029	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	6	57	
RICH0032	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	22	135	
RICH0035	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	07/31/72-07/08/74	1	11	
RICH0036	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	15	153	
RICH0060	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	8	34	
RICH0061	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	07/19/90-04/05/94	3	15	
RICH0064	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/20/83-10/03/83	0	2	
RICH0065	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	23	217	A
RICH0066	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	6	63	
RICH0067	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	17	174	A
RICH0069	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	22	68	
RICH0070	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/19/71-10/19/71	0	1	
RICH0079	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	6	61	
RICH0080	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	6	62	
RICH0081	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	6	62	
RICH0083	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/29/80-08/08/94	14	5	
RICH0089	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/20/83	12	62	
RICH0092	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/19/71-11/02/71	0	2	
RICH0094	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	22	218	A
RICH0096	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	8	93	
RICH0101	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	17	175	
RICH0102	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	14	136	
RICH0103	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-07/21/74	1	16	
RICH0104	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/24/94-04/19/95	0	2	
RICH0105	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	12	56	
RICH0113	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	07/28/83-09/27/83	0	3	
RICH0116	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	23	278	A
RICH0120	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	8	81	
RICH0130	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	8	93	
RICH0134	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	23	211	A
RICH0141	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	07/11/88-07/11/88	0	1	
RICH0143	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	8	87	
RICH0146	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	19	164	
RICH0027	No	31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	10/18/77-02/27/79	1	32	
RICH0121	No	31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	10/24/79-09/03/81	1	23	
RICH0027	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	4	119	
RICH0121	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	10/24/79-09/03/81	1	24	
RICH0027	No	31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	06/12/74-07/14/76	2	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0039	Yes	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	32104	BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	32104	BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	32104	BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	32104	BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	32106	CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	32106	CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	32106	CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	32106	CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0011	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/16/83-10/03/83	0	8	
RICH0023	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	0	8	
RICH0032	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/30/83-10/03/83	0	6	
RICH0060	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	0	8	
RICH0064	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/30/83-10/03/83	0	6	
RICH0069	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	0	8	
RICH0089	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/16/83-10/03/83	0	8	
RICH0113	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	0	8	
RICH0116	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/16/83-10/03/83	0	4	
RICH0131	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	10/31/89-01/25/90	0	2	
RICH0145	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	10/31/89-01/25/90	0	2	
RICH0147	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	10/31/89-01/25/90	0	2	
RICH0018	No	32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	10/19/71-11/02/71	0	3	
RICH0070	No	32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	10/19/71-11/02/71	0	3	
RICH0083	No	32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	04/29/80-08/08/94	14	9	
RICH0092	No	32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	10/19/71-11/02/71	0	3	
RICH0122	No	32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	10/19/71-11/02/71	0	3	
RICH0083	No	32211	CHLOROPHYLL-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/08/94-08/08/94	0	1	
RICH0131	No	32213	PHEOPHYTIN-A,FLUORIMETRIC METHOD (UG/L)	10/31/89-01/25/90	0	2	
RICH0145	No	32213	PHEOPHYTIN-A,FLUORIMETRIC METHOD (UG/L)	10/31/89-01/25/90	0	2	
RICH0147	No	32213	PHEOPHYTIN-A,FLUORIMETRIC METHOD (UG/L)	10/31/89-01/25/90	0	2	
RICH0011	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/16/83-10/03/83	0	8	
RICH0023	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	07/28/83-10/12/83	0	8	
RICH0032	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/30/83-10/03/83	0	6	
RICH0060	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	07/28/83-10/12/83	0	8	
RICH0064	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/30/83-10/03/83	0	6	
RICH0069	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	07/28/83-10/12/83	0	8	
RICH0083	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/08/94-08/08/94	0	1	
RICH0089	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/16/83-10/03/83	0	8	
RICH0113	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	07/28/83-10/12/83	0	8	
RICH0116	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/16/83-10/03/83	0	4	
RICH0083	No	32219	PHEOPHYTIN RATIO(OD 663)SPECTRO,BEFORE/AFTER ACID	08/08/94-08/08/94	0	1	
RICH0027	No	32226	CHLOROPHYLL B, PERIPHYTON, SPECTRO, MG/M2	09/14/74-09/14/74	0	1	
RICH0027	No	32228	CHLOROPHYLL A, PERIPHYTON, SPECTRO, MG/M2	09/14/74-09/14/74	0	1	
RICH0027	No	32230	CHLOROPHYLL A (MG/L)	03/12/74-08/09/78	4	95	
RICH0027	No	32231	CHLOROPHYLL B (MG/L)	03/12/74-08/09/78	4	95	
RICH0061	No	32240	TANNIN AND LIGNIN (MG/L)	01/02/92-04/19/93	1	4	
RICH0065	No	32240	TANNIN AND LIGNIN (MG/L)	01/02/92-04/19/93	1	5	
RICH0094	No	32240	TANNIN AND LIGNIN (MG/L)	01/12/94-05/05/94	0	2	
RICH0116	No	32240	TANNIN AND LIGNIN (MG/L)	01/12/94-01/12/94	0	1	
RICH0134	No	32240	TANNIN AND LIGNIN (MG/L)	12/03/91-03/03/93	1	5	
RICH0146	No	32240	TANNIN AND LIGNIN (MG/L)	12/03/91-03/03/93	1	6	
RICH0084	No	32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	09/04/91-09/04/91	0	1	
RICH0094	No	32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	01/22/74-06/02/74	0	5	
RICH0131	No	32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	10/31/89-09/04/91	1	23	
RICH0145	No	32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	10/31/89-07/26/91	1	17	
RICH0147	No	32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	10/31/89-09/04/91	1	25	
RICH0039	Yes	34200	ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0041	Yes	34200	ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34200	ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34200	ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34203	ACENAPHTHYLENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34203	ACENAPHTHYLENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34203	ACENAPHTHYLENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34203	ACENAPHTHYLENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34203	ACENAPHTHYLENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34203	ACENAPHTHYLENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34205	ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34205	ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34205	ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34205	ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34210	ACROLEIN TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34210	ACROLEIN TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34210	ACROLEIN TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34210	ACROLEIN TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34215	ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34215	ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34215	ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34215	ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34220	ANTHRACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34220	ANTHRACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34220	ANTHRACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34220	ANTHRACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0043	No	34252	BERYLLIUM WET WGTTISMG/KG	06/25/92-06/25/92	0	3	
RICH0043	Yes	34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0012	No	34258	B-BHC-BETA WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0005	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0083	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	08/14/89-08/08/94	4	2	
RICH0094	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0116	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/06/85-03/06/85	0	1	
RICH0043	Yes	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0012	No	34263	DELTA BENZENE HEXACHLORIDE WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0039	Yes	34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34292	N-BUTYL BENZYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34292	N-BUTYL BENZYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34292	N-BUTYL BENZYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34292	N-BUTYL BENZYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34301	CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34301	CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34301	CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34301	CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34311	CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34311	CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34311	CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34311	CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34320	CHRYSENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34320	CHRYSENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34320	CHRYSENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34320	CHRYSENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34323	CHRYSENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34323	CHRYSENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34323	CHRYSENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34323	CHRYSENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34323	CHRYSENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34323	CHRYSENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34336	DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34336	DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34336	DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34336	DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34341	DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34341	DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34341	DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34341	DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0005	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0083	No	34351	ENDOSULFAN SULFATE TOTWUG/L	08/14/89-08/08/94	4	2	
RICH0094	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	34351	ENDOSULFAN SULFATE TOTWUG/L	03/06/85-03/06/85	0	1	
RICH0005	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0083	No	34356	ENDOSULFAN, BETA TOTWUG/L	08/14/89-08/08/94	4	2	
RICH0094	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	34356	ENDOSULFAN, BETA TOTWUG/L	03/06/85-03/06/85	0	1	
RICH0043	Yes	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0012	No	34360	ENDOSULFAN, BETA WET WGTTISMG/KG	06/25/92-06/25/92	0	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0005	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0083	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	08/14/89-08/08/94	4	2	
RICH0094	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	34361	ENDOSULFAN, ALPHA TOTWUG/L	03/06/85-03/06/85	0	1	
RICH0012	No	34365	ENDOSULFAN, ALPHA WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0005	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0083	No	34366	ENDRIN ALDEHYDE TOTWUG/L	08/14/89-08/08/94	4	2	
RICH0094	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	34366	ENDRIN ALDEHYDE TOTWUG/L	03/06/85-03/06/85	0	1	
RICH0039	Yes	34371	ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34371	ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34371	ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34371	ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34376	FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34376	FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34376	FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34376	FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34379	FLUORANTHENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34379	FLUORANTHENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34379	FLUORANTHENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34379	FLUORANTHENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34379	FLUORANTHENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34379	FLUORANTHENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34381	FLUORENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34381	FLUORENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34381	FLUORENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34381	FLUORENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34384	FLUORENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34384	FLUORENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34384	FLUORENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34384	FLUORENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34384	FLUORENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34384	FLUORENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34396	HEXAChLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34396	HEXAChLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34396	HEXAChLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34396	HEXAChLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34408	ISOPHORONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34408	ISOPHORONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34408	ISOPHORONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34408	ISOPHORONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34413	METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34413	METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34413	METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34413	METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34418	METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34418	METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34418	METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0049	Yes	34418	METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34423	METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34423	METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34423	METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34423	METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34428	N-NITROSODI-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34428	N-NITROSODI-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34428	N-NITROSODI-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34428	N-NITROSODI-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34433	N-NITROSDIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34433	N-NITROSDIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34433	N-NITROSDIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34433	N-NITROSDIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34438	N-NITROSDIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34438	N-NITROSDIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34438	N-NITROSDIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34438	N-NITROSDIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34445	NAPHTHALENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34445	NAPHTHALENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34445	NAPHTHALENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34445	NAPHTHALENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34445	NAPHTHALENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34445	NAPHTHALENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34447	NITROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34447	NITROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34447	NITROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34447	NITROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34452	PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34452	PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34452	PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34452	PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34461	PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34461	PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34461	PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34461	PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34464	PHENANTHRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34464	PHENANTHRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34464	PHENANTHRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34464	PHENANTHRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34464	PHENANTHRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34464	PHENANTHRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34469	PYRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34469	PYRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34469	PYRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34469	PYRENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34472	PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34472	PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34472	PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34472	PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34472	PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34472	PYRENE DRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34475	TETRACHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34475	TETRACHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34475	TETRACHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34475	TETRACHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0061	No	34480	THALLIUM DRY WGTBOTMG/KG	07/27/92-09/12/97	5	2	
RICH0065	No	34480	THALLIUM DRY WGTBOTMG/KG	07/27/92-07/27/92	0	1	
RICH0085	No	34480	THALLIUM DRY WGTBOTMG/KG	11/10/97-11/10/97	0	1	
RICH0094	No	34480	THALLIUM DRY WGTBOTMG/KG	08/27/92-08/27/92	0	1	
RICH0104	No	34480	THALLIUM DRY WGTBOTMG/KG	04/19/95-04/19/95	0	1	
RICH0116	No	34480	THALLIUM DRY WGTBOTMG/KG	08/27/92-08/27/92	0	1	
RICH0130	No	34480	THALLIUM DRY WGTBOTMG/KG	02/15/95-11/10/97	2	2	
RICH0134	No	34480	THALLIUM DRY WGTBOTMG/KG	07/21/92-07/21/92	0	1	
RICH0146	No	34480	THALLIUM DRY WGTBOTMG/KG	07/21/92-07/21/92	0	1	
RICH0039	Yes	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34496	1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34496	1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34496	1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34496	1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0039	Yes	34501	1,1-DICHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34501	1,1-DICHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34501	1,1-DICHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34501	1,1-DICHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	34529	BENZO(A)ANTHRACENE1,2-BENZANTHRCENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	34529	BENZO(A)ANTHRACENE1,2-BENZANTHRCENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	34529	BENZO(A)ANTHRACENE1,2-BENZANTHRCENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	34529	BENZO(A)ANTHRACENE1,2-BENZANTHRCENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	34529	BENZO(A)ANTHRACENE1,2-BENZANTHRCENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	34529	BENZO(A)ANTHRACENE1,2-BENZANTHRCENDRY WGTBOTUG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	34536	1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34536	1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34536	1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34536	1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34541	1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34541	1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34541	1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34541	1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34556	1,2,5,6-DIBENZANTHRCACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34556	1,2,5,6-DIBENZANTHRCACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34556	1,2,5,6-DIBENZANTHRCACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34556	1,2,5,6-DIBENZANTHRCACENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34566	1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34566	1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34566	1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34566	1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34571	1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34571	1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34571	1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34571	1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34581	2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34581	2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34581	2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34581	2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34586	2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34586	2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34586	2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34586	2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34591	2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34591	2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34591	2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34591	2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34596	DI-N-OCTYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34596	DI-N-OCTYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34596	DI-N-OCTYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34596	DI-N-OCTYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0039	Yes	34601	2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34601	2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34601	2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34601	2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34606	2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34606	2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34606	2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34606	2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34611	2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34611	2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34611	2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34611	2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34616	2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34616	2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34616	2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34616	2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34626	2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34626	2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34626	2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34626	2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34646	4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34646	4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34646	4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34646	4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0012	No	34664	PCB - 1221 WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0012	No	34667	PCB - 1232 WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0039	Yes	34668	DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34668	DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34668	DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34668	DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0012	No	34669	PCB - 1248 WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0012	No	34670	PCB - 1260 WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0005	No	34671	PCB - 1016 TOTWUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0083	No	34671	PCB - 1016 TOTWUG/L	08/14/89-08/08/94	4	2	
RICH0094	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	34671	PCB - 1016 TOTWUG/L	03/06/85-03/06/85	0	1	
RICH0012	No	34674	PCB - 1016 WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0012	No	34680	ALDRIN IN FISH TISSUE WET WEIGHT MG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	34680	ALDRIN IN FISH TISSUE WET WEIGHT MG/KG	10/01/86-10/01/86	0	3	
RICH0012	No	34682	CHLORDANE(TECH MIX & METABS),TISSUEWET WGTT,MG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	34684	DIELDRIN TISMG/KG	10/01/70-10/01/86	16	37	
RICH0012	No	34685	ENDRIN WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	34685	ENDRIN WET WGTTISMG/KG	10/01/70-10/01/86	16	37	
RICH0004	No	34686	HEPTACHLOR EPOXIDE WET WGTTISMG/KG	04/06/79-04/06/79	0	2	
RICH0007	No	34686	HEPTACHLOR EPOXIDE WET WGTTISMG/KG	04/06/79-04/06/79	0	2	
RICH0012	No	34686	HEPTACHLOR EPOXIDE WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	34686	HEPTACHLOR EPOXIDE WET WGTTISMG/KG	10/01/86-10/01/86	0	3	
RICH0012	No	34687	HEPTACHLOR WET WGTTISMG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	34687	HEPTACHLOR WET WGTTISMG/KG	10/01/70-10/01/86	16	37	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0012	No	34688	HEXACHLOROBENZENE WET WGTTISMKG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	34688	HEXACHLOROBENZENE WET WGTTISMKG/KG	10/01/77-10/01/86	9	15	
RICH0012	No	34689	PCB - 1242 WET WGTTISMKG/KG	06/25/92-06/25/92	0	2	
RICH0012	No	34690	PCB - 1254 WET WGTTISMKG/KG	06/25/92-06/25/92	0	2	
RICH0012	No	34691	TOXAPHENE WET WGTTISMKG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	34691	TOXAPHENE WET WGTTISMKG/KG	10/01/71-10/01/86	15	33	
RICH0039	Yes	34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34696	NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34696	NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34696	NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34696	NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0005	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0094	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/06/85-03/06/85	0	1	
RICH0005	No	38451	DICHLORPROP WATER,SUSPUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0094	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	38451	DICHLORPROP WATER,SUSPUG/L	03/06/85-03/06/85	0	1	
RICH0039	Yes	38462	FAMPHUR WATER, TOTUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	38462	FAMPHUR WATER, TOTUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	38462	FAMPHUR WATER, TOTUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	38462	FAMPHUR WATER, TOTUG/L	05/03/96-05/03/96	0	1	
RICH0012	No	38744	CHLORPYRIFOS-METHYL TISWETWGTMG/KG	06/25/92-06/25/92	0	2	
RICH0005	No	38745	2,4-DB WATER, TOTUG/L	03/13/85-03/13/85	0	1	
RICH0019	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0036	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0065	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0067	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0094	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0101	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0102	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0116	No	38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	0	1	
RICH0134	No	38745	2,4-DB WATER, TOTUG/L	03/06/85-03/06/85	0	1	
RICH0005	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/17/79-03/13/85	5	4	
RICH0019	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	5	3	
RICH0036	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	5	3	
RICH0039	Yes	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0065	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	5	3	
RICH0067	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	5	3	
RICH0083	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	4	2	
RICH0094	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	5	3	
RICH0101	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	5	3	
RICH0102	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	5	3	
RICH0134	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/16/79-03/06/85	5	4	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0146	No	39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/16/79-09/08/80	0	2	
RICH0012	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	06/25/92-06/25/92	0	1	
RICH0023	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	09/23/91-09/23/91	0	1	
RICH0061	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	07/27/92-09/12/97	5	2	
RICH0065	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	07/27/92-07/27/92	0	1	
RICH0083	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	08/14/89-08/08/94	4	2	
RICH0085	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	11/10/97-11/10/97	0	1	
RICH0094	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	08/27/92-08/27/92	0	1	
RICH0104	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	04/19/95-04/19/95	0	1	
RICH0116	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	08/27/92-08/27/92	0	1	
RICH0130	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	02/15/95-11/10/97	2	2	
RICH0134	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	07/21/92-07/21/92	0	1	
RICH0146	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	03/06/85-07/21/92	7	2	
RICH0005	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-09/08/80	0	2	
RICH0129	No	39063	CHLORDANE-CIS ISOMER, TISSUE WET WGT (UG/G)	10/01/77-10/01/86	9	15	
RICH0005	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-09/08/80	0	2	
RICH0129	No	39066	CHLORDANE-TRANS ISOMER, TISSUE WET WGT (UG/G)	10/01/77-10/01/86	9	15	
RICH0005	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/16/79-09/08/80	0	2	
RICH0012	No	39069	CHLORDANE-NONACHLOR,CIS ISO, TISSUE WET WGT(UG/G)	06/25/92-06/25/92	0	2	
RICH0129	No	39069	CHLORDANE-NONACHLOR,CIS ISO, TISSUE WET WGT(UG/G)	10/01/77-10/01/86	9	15	
RICH0043	Yes	39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	0	1	
RICH0005	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/16/79-09/08/80	0	2	
RICH0012	No	39072	CHLORDANE-NONACHLOR,TRANS ISO, TISSUE,WET WT,UG/G	06/25/92-06/25/92	0	2	
RICH0129	No	39072	CHLORDANE-NONACHLOR,TRANS ISO, TISSUE,WET WT,UG/G	10/01/77-10/01/86	9	15	
RICH0012	No	39074	BHC-ALPHA ISOMER, TISSUE UG/G WET WGT	06/25/92-06/25/92	0	2	
RICH0129	No	39074	BHC-ALPHA ISOMER, TISSUE UG/G WET WGT	10/01/70-10/01/86	16	19	
RICH0043	Yes	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	0	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0056	Yes	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	0	1	
RICH0039	Yes	39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	0	1	
RICH0131	No	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	06/11/91-06/11/91	0	1	
RICH0145	No	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	06/11/91-06/11/91	0	1	
RICH0147	No	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	06/11/91-06/11/91	0	1	
RICH0011	No	39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER,UG/L	10/21/97-10/21/97	0	2	
RICH0039	Yes	39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0012	No	39105	PERCENT FAT HEXANE EXTRACTION	06/25/92-06/25/92	0	2	
RICH0129	No	39105	PERCENT FAT HEXANE EXTRACTION	10/01/70-10/01/86	16	37	
RICH0039	Yes	39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	0	1	
RICH0012	No	39290	DDT TOTAL IN TISSUE WET WGT BASIS (UG/G)	06/25/92-06/25/92	0	2	
RICH0129	No	39290	DDT TOTAL IN TISSUE WET WGT BASIS (UG/G)	10/01/70-10/01/86	16	37	
RICH0005	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	5	4	
RICH0019	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0036	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0065	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0067	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0083	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0094	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0101	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0102	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0134	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	5	4	
RICH0146	No	39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0043	Yes	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0005	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0043	Yes	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0005	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	5	4	
RICH0019	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0036	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0065	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0067	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0083	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0094	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0101	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0102	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0116	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0134	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	5	4	
RICH0146	No	39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0005	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0043	Yes	39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0005	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	5	4	
RICH0019	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0036	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0065	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0067	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0083	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0094	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0101	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0102	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0134	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	5	4	
RICH0146	No	39320	P,P'DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0043	Yes	39321	P,P'DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39321	P,P'DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39321	P,P'DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39321	P,P'DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39321	P,P'DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39321	P,P'DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0005	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0043	Yes	39328	O,P'DDDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39328	O,P'DDDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39328	O,P'DDDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39328	O,P'DDDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39328	O,P'DDDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39328	O,P'DDDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0004	No	39329	O,P'DDE IN TISSUE, WET WGT(UG/G)	04/06/79-04/06/79	0	1	
RICH0005	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	5	4	
RICH0011	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0019	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	4	
RICH0023	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0032	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0036	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	4	
RICH0060	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0065	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	4	
RICH0067	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	4	
RICH0069	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0083	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0089	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0094	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	4	
RICH0101	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0102	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/18/82-03/28/85	2	2	
RICH0105	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0116	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	4	
RICH0134	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	5	5	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0146	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-06/29/82	2	3	
RICH0005	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/04/82-05/04/82	0	1	
RICH0019	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0023	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	0	1	
RICH0036	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0043	Yes	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0061	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	5	2	
RICH0065	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-07/27/92	11	2	
RICH0067	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0083	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/08/94-08/08/94	0	1	
RICH0085	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	0	1	
RICH0094	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-08/27/92	11	2	
RICH0101	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/18/82	1	2	
RICH0104	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	0	1	
RICH0116	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-08/27/92	11	2	
RICH0130	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2	2	
RICH0134	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/21/92-07/21/92	0	1	
RICH0146	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/12/81-07/21/92	11	2	
RICH0005	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/13/85-03/13/85	0	1	
RICH0019	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0036	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0065	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0067	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0083	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	08/14/89-08/08/94	4	2	
RICH0094	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0101	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0102	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0116	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0134	No	39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/06/85-03/06/85	0	1	
RICH0005	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/13/85-03/13/85	0	1	
RICH0019	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0036	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0065	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0067	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0083	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	08/14/89-08/08/94	4	2	
RICH0094	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0101	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0102	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0116	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	0	1	
RICH0134	No	39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/06/85-03/06/85	0	1	
RICH0005	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/13/85-03/13/85	0	1	
RICH0019	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0036	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0065	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0067	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0083	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	08/14/89-08/08/94	4	2	
RICH0094	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0101	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0102	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0134	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/06/85-03/06/85	0	1	
RICH0043	Yes	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0005	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/17/79-05/19/81	1	3	
RICH0019	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	0	2	
RICH0036	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	0	2	
RICH0065	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	0	2	
RICH0067	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	0	2	
RICH0083	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	08/08/94-08/08/94	0	1	
RICH0094	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	0	2	
RICH0101	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	0	2	
RICH0116	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	0	2	
RICH0134	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/16/79-05/12/81	1	3	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0146	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/16/79-09/08/80	0	2	
RICH0012	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	06/25/92-06/25/92	0	1	
RICH0023	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	09/23/91-09/23/91	0	1	
RICH0061	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	07/27/92-09/12/97	5	2	
RICH0065	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	07/27/92-07/27/92	0	1	
RICH0083	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	08/14/89-08/08/94	4	2	
RICH0085	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	11/10/97-11/10/97	0	1	
RICH0094	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	08/27/92-08/27/92	0	1	
RICH0104	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	04/19/95-04/19/95	0	1	
RICH0116	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	08/27/92-08/27/92	0	1	
RICH0130	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	02/15/95-11/10/97	2	2	
RICH0134	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	07/21/92-07/21/92	0	1	
RICH0146	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	03/06/85-07/21/92	7	2	
RICH0012	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	0	1	
RICH0023	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	0	1	
RICH0061	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	5	2	
RICH0065	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-07/27/92	0	1	
RICH0083	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	4	2	
RICH0085	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	0	1	
RICH0094	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0104	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	0	1	
RICH0116	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0130	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2	2	
RICH0134	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/21/92-07/21/92	0	1	
RICH0146	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	7	2	
RICH0012	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	0	1	
RICH0023	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	0	1	
RICH0061	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	5	2	
RICH0065	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-07/27/92	0	1	
RICH0083	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	4	2	
RICH0085	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	0	1	
RICH0094	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0104	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	0	1	
RICH0116	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0130	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2	2	
RICH0134	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/21/92-07/21/92	0	1	
RICH0146	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	7	2	
RICH0109	No	39369	DDE IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	03/19/76-04/12/79	3	63	
RICH0012	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	0	1	
RICH0023	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	0	1	
RICH0061	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	5	2	
RICH0065	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-07/27/92	0	1	
RICH0083	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	4	2	
RICH0085	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	0	1	
RICH0094	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0104	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	0	1	
RICH0116	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0130	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2	2	
RICH0134	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/21/92-07/21/92	0	1	
RICH0146	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	7	2	
RICH0109	No	39374	DDT IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	08/08/78-04/12/79	0	22	
RICH0005	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	5	4	
RICH0019	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0032	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	06/13/71-06/13/71	0	1	
RICH0036	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0065	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	04/28/71-03/28/85	13	4	
RICH0067	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0083	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0089	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	05/06/71-05/06/71	0	1	
RICH0094	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0101	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0102	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0105	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	05/06/71-06/13/71	0	2	
RICH0116	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0120	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/71-06/27/71	0	2	
RICH0134	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	5	4	
RICH0146	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0012	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/25/92-06/25/92	0	1	
RICH0023	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/23/91-09/23/91	0	1	
RICH0043	Yes	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0052	Yes	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0061	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/27/92-09/12/97	5	2	
RICH0065	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/27/92-07/27/92	0	1	
RICH0083	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/14/89-08/08/94	4	2	
RICH0085	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	11/10/97-11/10/97	0	1	
RICH0094	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	0	1	
RICH0104	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	04/19/95-04/19/95	0	1	
RICH0116	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	0	1	
RICH0130	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	02/15/95-11/10/97	2	2	
RICH0134	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/21/92-07/21/92	0	1	
RICH0146	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	03/06/85-07/21/92	7	2	
RICH0005	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	5	4	
RICH0019	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0036	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0065	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0067	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0083	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0094	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0101	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0102	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	5	3	
RICH0134	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	5	4	
RICH0146	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0012	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	0	1	
RICH0023	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	0	1	
RICH0043	Yes	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0061	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	5	2	
RICH0065	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-07/27/92	0	1	
RICH0083	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	4	2	
RICH0085	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	0	1	
RICH0094	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0104	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	0	1	
RICH0116	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0130	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2	2	
RICH0134	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/21/92-07/21/92	0	1	
RICH0146	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	7	2	
RICH0005	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	0	1	
RICH0019	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0036	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0065	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0067	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0083	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0094	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0101	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0102	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0134	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	0	1	
RICH0012	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/25/92-06/25/92	0	1	
RICH0023	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/23/91-09/23/91	0	1	
RICH0061	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/27/92-09/12/97	5	2	
RICH0065	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/27/92-07/27/92	0	1	
RICH0083	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/14/89-08/08/94	4	2	
RICH0085	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	11/10/97-11/10/97	0	1	
RICH0094	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	0	1	
RICH0104	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	04/19/95-04/19/95	0	1	
RICH0116	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	0	1	
RICH0130	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	02/15/95-11/10/97	2	2	
RICH0134	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/21/92-07/21/92	0	1	
RICH0146	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	03/06/85-07/21/92	7	2	
RICH0012	No	39404	DIELDRIN IN TISSUE WET WGT (UG/G)	06/25/92-06/25/92	0	2	
RICH0004	No	39406	DIELDRIN IN AQ ORGANISMS WT WGT BASIS (UG/G)	04/06/79-04/06/79	0	1	
RICH0005	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	0	1	
RICH0019	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0036	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0065	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0067	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0083	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0094	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0101	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0102	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0134	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	0	1	
RICH0012	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	0	1	
RICH0023	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	0	1	
RICH0043	Yes	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0061	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	5	2	
RICH0065	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	07/27/92-07/27/92	0	1	
RICH0083	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	4	2	
RICH0085	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	0	1	
RICH0094	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0104	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	0	1	
RICH0116	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	0	1	
RICH0130	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2	2	
RICH0134	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	07/21/92-07/21/92	0	1	
RICH0146	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	7	2	
RICH0005	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	0	1	
RICH0019	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0036	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0065	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0067	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0083	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	4	2	
RICH0094	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0101	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0102	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0134	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	0	1	
RICH0043	Yes	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	0	2	
RICH0056	Yes	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	0	1	
RICH0039	Yes	39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0041	Yes	39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0042	Yes	39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0049	Yes	39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0039	Yes	39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0041	Yes	39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0042	Yes	39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0049	Yes	39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0005	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0005	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	0	1	
RICH0019	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0036	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0065	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0067	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0083	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	4	2	
RICH0094	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0101	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0102	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0134	No	39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	0	1	
RICH0005	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0019	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0036	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0065	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0067	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0083	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	4	2	
RICH0094	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0101	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0102	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0134	No	39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	0	1	
RICH0005	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	0	1	
RICH0019	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0036	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0065	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0067	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0083	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	4	2	
RICH0094	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0101	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0102	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0134	No	39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	0	1	
RICH0005	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	0	1	
RICH0019	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0036	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0065	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0067	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0083	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	4	2	
RICH0094	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0101	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0102	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0134	No	39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	0	1	
RICH0005	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	0	1	
RICH0019	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0036	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0065	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0067	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0083	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	4	2	
RICH0094	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0101	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0102	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	0	1	
RICH0134	No	39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	0	1	
RICH0004	No	39515	PCBS (MG/KG) FISH TISSUE MG/KG	04/06/79-04/06/79	0	6	
RICH0007	No	39515	PCBS (MG/KG) FISH TISSUE MG/KG	04/06/79-04/06/79	0	4	
RICH0012	No	39515	PCBS (MG/KG) FISH TISSUE MG/KG	06/25/92-06/25/92	0	2	
RICH0005	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	03/15/71-09/11/80	9	3	
RICH0067	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0083	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	08/08/94-08/08/94	0	1	
RICH0094	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0109	No	39520	PCBS IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	02/24/76-04/12/79	3	84	
RICH0012	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	06/25/92-06/25/92	0	1	
RICH0023	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	09/23/91-09/23/91	0	1	
RICH0061	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	07/27/92-09/12/97	5	2	
RICH0065	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	07/27/92-07/27/92	0	1	
RICH0083	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	08/14/89-08/08/94	4	2	
RICH0085	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	11/10/97-11/10/97	0	1	
RICH0094	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	08/27/92-08/27/92	0	1	
RICH0104	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	04/19/95-04/19/95	0	1	
RICH0116	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	08/27/92-08/27/92	0	1	
RICH0130	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	02/15/95-11/10/97	2	2	
RICH0134	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	07/21/92-07/21/92	0	1	
RICH0146	No	39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	03/06/85-07/21/92	7	2	
RICH0039	Yes	39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0041	Yes	39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0042	Yes	39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0049	Yes	39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0011	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0019	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	0	1	
RICH0023	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0032	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0036	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	0	1	
RICH0060	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0065	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/08/75-05/18/82	7	2	
RICH0067	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	0	1	
RICH0069	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0089	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	0	2	
RICH0094	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	0	1	
RICH0102	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	0	1	
RICH0105	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	06/13/71-10/28/82	11	3	
RICH0116	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	08/15/82-08/15/82	0	1	
RICH0134	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	06/29/82-06/29/82	0	1	
RICH0146	No	39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	06/29/82-06/29/82	0	1	
RICH0005	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/04/82-05/04/82	0	1	
RICH0019	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0036	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0065	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0067	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0094	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0101	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/18/82	1	2	
RICH0116	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	0	1	
RICH0146	No	39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/12/81-05/12/81	0	1	
RICH0005	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	1	3	
RICH0019	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0036	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0065	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0067	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0094	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0101	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0116	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	0	2	
RICH0134	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	1	3	
RICH0146	No	39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	0	2	
RICH0039	Yes	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	0	1	
RICH0041	Yes	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	0	1	
RICH0042	Yes	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	0	1	
RICH0049	Yes	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	0	1	
RICH0005	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	0	1	
RICH0019	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0036	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0065	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0067	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0094	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0101	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0102	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0134	No	39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	0	1	
RICH0005	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	0	1	
RICH0019	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0036	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0065	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0067	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0094	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0101	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0102	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0134	No	39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	0	1	
RICH0043	Yes	39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0045	Yes	39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0048	Yes	39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0052	Yes	39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0055	Yes	39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH0056	Yes	39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	0	1	
RICH005	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	0	1	
RICH0019	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0036	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0065	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0067	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0094	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0101	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0102	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0116	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	0	1	
RICH0134	No	39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	0	1	
RICH0129	No	39781	LINDANE AQUATIC ORGANISMS WT WGT BASIS(UG/G)	10/01/86-10/01/86	0	3	
RICH0012	No	39785	GAMMA-BHC(LINDANE),TISSUE,WET WEIGHT,MG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	39785	GAMMA-BHC(LINDANE),TISSUE,WET WEIGHT,MG/KG	10/01/77-10/01/84	7	12	
RICH0039	Yes	39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0041	Yes	39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0042	Yes	39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0049	Yes	39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0039	Yes	45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	0	1	
RICH0012	No	45651	PCB - 1262, TISSUE, WET WEIGHT MG/KG	06/25/92-06/25/92	0	2	
RICH0039	Yes	46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0041	Yes	46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0042	Yes	46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0049	Yes	46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	0	1	
RICH0061	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/24/91-04/19/93	1	8	
RICH0065	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/24/91-04/19/93	1	8	
RICH0083	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	08/08/94-08/08/94	0	1	
RICH0134	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	03/13/91-06/01/93	2	8	
RICH0146	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	03/13/91-06/01/93	2	7	
RICH0032	No	49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	3	90	
RICH0069	No	49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	3	88	
RICH0116	No	49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	02/22/95-12/15/98	3	47	
RICH0032	No	49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	3	86	
RICH0069	No	49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	3	85	
RICH0116	No	49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	02/22/95-12/15/98	3	45	
RICH0032	No	49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	3	86	
RICH0069	No	49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	3	85	
RICH0116	No	49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	3	45	
RICH0032	No	49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	3	90	
RICH0069	No	49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	3	88	
RICH0116	No	49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	02/22/95-12/15/98	3	47	
RICH0032	No	49572	PHOSPHOROUS TOTAL, FIELD FILTRED, DISSLVD,WTR MG/L	03/23/95-12/15/98	3	90	
RICH0069	No	49572	PHOSPHOROUS TOTAL, FIELD FILTRED, DISSLVD,WTR MG/L	03/23/95-12/15/98	3	90	
RICH0116	No	49572	PHOSPHOROUS TOTAL, FIELD FILTRED, DISSLVD,WTR MG/L	02/22/95-12/15/98	3	47	
RICH0043	Yes	49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation  
From 07/30/45 To 12/15/98**

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0023	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/27/83	8	4	
RICH0029	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	0	1	
RICH0032	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-10/03/83	8	3	
RICH0060	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/27/83	8	4	
RICH0064	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	09/20/83-10/03/83	0	2	
RICH0065	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	0	1	
RICH0066	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-08/03/74	0	2	
RICH0067	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-08/03/74	0	2	
RICH0069	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/27/83	8	4	
RICH0079	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	0	1	
RICH0080	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	0	1	
RICH0081	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	0	1	
RICH0089	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/20/83	8	3	
RICH0094	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-08/22/74	0	1	
RICH0096	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	0	1	
RICH0101	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-08/22/74	0	1	
RICH0102	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-08/22/74	0	1	
RICH0105	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-05/01/75	0	1	
RICH0113	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/28/83-09/27/83	0	3	
RICH0116	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-10/03/83	9	3	
RICH0120	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	12/05/73-08/22/74	0	2	
RICH0130	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	0	1	
RICH0134	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	0	1	
RICH0143	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	0	1	
RICH0044	Yes	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50120	ARSENIC, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	0	1	
RICH0047	Yes	50120	ARSENIC, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	0	1	
RICH0044	Yes	50122	BARIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50122	BARIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50122	BARIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50122	BARIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50122	BARIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50125	CADMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50125	CADMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50125	CADMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50125	CADMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50125	CADMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50127	CHROMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50127	CHROMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50127	CHROMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50127	CHROMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50127	CHROMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50128	COPPER, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50128	COPPER, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50128	COPPER, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50128	COPPER, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50128	COPPER, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50129	IRON, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50129	IRON, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50129	IRON, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50129	IRON, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50129	IRON, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50132	MANGANESE, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50132	MANGANESE, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50132	MANGANESE, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50132	MANGANESE, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50132	MANGANESE, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50133	MOLYBDENUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50133	MOLYBDENUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50133	MOLYBDENUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50133	MOLYBDENUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50133	MOLYBDENUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50135	NICKEL, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0047	Yes	50135	NICKEL, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	
RICH0051	Yes	50135	NICKEL, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0053	Yes	50135	NICKEL, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	1	
RICH0054	Yes	50135	NICKEL, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	0	2	
RICH0044	Yes	50136	LEAD, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	1	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation  
From 07/30/45 To 12/15/98**

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**Station/Parameter Period of Record Tabulation  
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**Station/Parameter Period of Record Tabulation  
From 07/30/45 To 12/15/98**

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**Station/Parameter Period of Record Tabulation  
From 07/30/45 To 12/15/98**

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**Station/Parameter Period of Record Tabulation  
From 07/30/45 To 12/15/98**

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**Station/Parameter Period of Record Tabulation  
From 07/30/45 To 12/15/98**

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**Station/Parameter Period of Record Tabulation  
From 07/30/45 To 12/15/98**

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0043	Yes	61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0027	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/12/74-02/27/79	4	113	
RICH0050	Yes	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/30/76-07/25/78	1	2	
RICH0082	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/30/45-05/09/69	23	45	
RICH0027	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/22/74-05/22/74	0	1	
RICH0050	Yes	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	11/30/76-07/25/78	1	2	
RICH0082	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/09/69-05/09/69	0	1	
RICH0027	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	4	114	
RICH0082	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	05/09/69-05/09/69	0	1	
RICH0027	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	4	114	
RICH0050	Yes	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	11/30/76-07/25/78	1	2	
RICH0082	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/09/69-05/09/69	0	1	
RICH0129	No	70320	MOISTURE CONTENT (PERCENT OF TOTAL WET WEIGHT)	10/01/77-10/01/86	9	15	
RICH0027	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	06/08/78-06/08/78	0	1	
RICH0084	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/13/89	1	4	
RICH0100	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	1	4	
RICH0121	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	08/12/80-08/12/80	0	1	
RICH0131	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	1	4	
RICH0132	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	1	4	
RICH0136	Yes	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	1	4	
RICH0144	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	1	4	
RICH0145	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	1	4	
RICH0001	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	10/26/73-11/25/74	1	11	
RICH0002	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	07/08/72-03/24/78	5	32	
RICH0003	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	6	65	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0005	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	6	64	
RICH0006	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	05/29/74-06/22/79	5	51	
RICH0008	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	09/10/74-06/12/79	4	41	
RICH0010	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-09/19/73	0	4	
RICH0011	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	05/26/74-04/24/79	4	26	
RICH0015	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-08/30/74	4	34	
RICH0019	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	9	71	
RICH0023	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	9	55	
RICH0028	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-01/10/74	0	8	
RICH0029	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	6	60	
RICH0032	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	9	50	
RICH0035	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	07/31/72-07/08/74	1	10	
RICH0036	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	10/02/74-06/21/79	4	42	
RICH0060	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	05/01/75-04/24/79	3	20	
RICH0065	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	10	74	
RICH0066	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	6	64	
RICH0067	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	6	63	
RICH0069	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	9	55	
RICH0079	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	6	62	
RICH0080	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	6	62	
RICH0081	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	6	63	
RICH0089	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	9	55	
RICH0094	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	6	63	
RICH0096	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	9	99	
RICH0101	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	6	63	
RICH0102	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	05/27/74-06/07/79	5	50	
RICH0103	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-07/21/74	1	14	
RICH0105	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-04/24/79	9	54	
RICH0116	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	10	99	
RICH0120	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	9	84	
RICH0130	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	9	99	
RICH0134	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	9	98	
RICH0143	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	9	95	
RICH0146	No	70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/20/75-06/14/79	4	41	
RICH0001	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/26/73-11/25/74	1	11	
RICH0002	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/08/72-03/24/78	5	32	
RICH0003	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	6	65	
RICH0005	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	6	64	
RICH0006	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/29/74-06/22/79	5	51	
RICH0008	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	09/10/74-06/12/79	4	41	
RICH0010	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-09/19/73	0	4	
RICH0011	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	24	80	
RICH0015	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-08/30/74	4	34	
RICH0019	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	9	71	
RICH0023	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	9	55	
RICH0028	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-01/10/74	0	8	
RICH0029	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	6	60	
RICH0032	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-06/01/95	25	61	S
RICH0035	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/31/72-07/08/74	1	10	
RICH0036	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/02/74-06/21/79	4	41	
RICH0059	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	0	11	
RICH0060	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/01/75-04/24/79	3	20	
RICH0061	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/24/91-11/19/98	7	32	
RICH0064	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	0	11	
RICH0065	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	28	116	S
RICH0066	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	6	64	
RICH0067	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	6	62	
RICH0069	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	9	55	
RICH0077	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	0	11	
RICH0079	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	6	62	
RICH0080	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	6	62	
RICH0081	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	6	62	
RICH0083	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	08/08/94-08/08/94	0	1	
RICH0084	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	09/04/91-09/04/91	0	1	
RICH0085	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/29/96-12/14/98	2	32	
RICH0089	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	9	55	
RICH0091	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	08/06/97-12/07/98	1	9	
RICH0093	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	0	11	
RICH0094	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-12/07/98	26	84	
RICH0096	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	9	100	
RICH0101	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/07/79	6	62	
RICH0102	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/27/74-06/07/79	5	49	S

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0103	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-07/21/74	1	14	
RICH0104	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/20/94-11/23/98	4	20	
RICH0105	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	25	65	S
RICH0108	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	0	12	
RICH0110	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0115	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	0	12	
RICH0116	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	25	109	S
RICH0118	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0119	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0120	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	9	83	
RICH0125	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	0	12	
RICH0126	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	0	11	
RICH0130	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	28	153	S
RICH0131	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/31/89-09/04/91	1	23	
RICH0134	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	28	130	S
RICH0143	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	9	95	
RICH0145	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/31/89-09/04/91	1	22	
RICH0146	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	23	110	
RICH0147	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/31/89-09/04/91	1	25	
RICH0027	No	70953	CHLOROPHYLL-A,PHYTOPLANKTON UG/L,CHROMO-FLUORO	04/19/78-02/27/79	0	19	
RICH0027	No	70954	CHLOROPHYLL-B,PHYTOPLANKTON UG/L,CHROMO-FLUORO	04/19/78-02/27/79	0	19	
RICH0082	No	71835	OXYGEN CONSUMED, FILTERED MG/L	10/01/45-09/21/46	0	36	
RICH0082	No	71840	OXYGEN CONSUMED, UNFILTERED MG/L	10/01/45-09/21/46	0	36	
RICH0050	Yes	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	11/30/76-07/25/78	1	2	
RICH0082	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	07/30/45-05/09/69	23	45	
RICH0149	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	04/03/86-04/03/86	0	1	
RICH0050	Yes	71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	11/30/76-07/25/78	1	2	
RICH0082	No	71885	IRON (UG/L AS FE)	07/30/45-01/11/56	10	44	
RICH0149	No	71885	IRON (UG/L AS FE)	04/03/86-04/03/86	0	1	
RICH0121	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	10/24/79-09/03/81	1	24	
RICH0027	No	71887	NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	4	120	
RICH0121	No	71887	NITROGEN, TOTAL, AS NO3 - MG/L	10/24/79-09/03/81	1	23	
RICH0044	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	12/06/89-07/24/91	1	2	
RICH0047	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	12/06/89-07/24/91	1	2	
RICH0051	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	07/24/91-07/24/91	0	1	
RICH0053	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	07/24/91-07/24/91	0	1	
RICH0054	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	07/24/91-07/24/91	0	2	
RICH0084	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	0	2	
RICH0100	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	0	2	
RICH0131	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	0	2	
RICH0132	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	0	2	
RICH0136	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	0	2	
RICH0144	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	0	2	
RICH0145	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	0	2	
RICH0001	No	71900	MERCURY, TOTAL (UG/L AS HG)	12/07/73-12/07/73	0	1	
RICH0002	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/02/72-05/27/76	4	8	
RICH0003	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/14/73-05/24/79	6	12	
RICH0005	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/14/73-03/13/85	11	13	
RICH0006	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/21/75-05/24/79	4	10	
RICH0008	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/17/75-05/15/78	3	7	
RICH0011	No	71900	MERCURY, TOTAL (UG/L AS HG)	06/04/75-10/28/82	7	7	
RICH0015	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-05/03/73	2	7	
RICH0019	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-03/28/85	14	19	
RICH0023	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	12	14	
RICH0028	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/29/73-12/12/73	0	3	
RICH0029	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/29/73-11/17/77	4	7	
RICH0032	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	12	15	
RICH0035	No	71900	MERCURY, TOTAL (UG/L AS HG)	07/31/72-05/03/73	0	4	
RICH0036	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/26/75-03/28/85	10	5	
RICH0039	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	0	1	
RICH0041	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	0	1	
RICH0042	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	0	1	
RICH0044	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	12/06/89-12/06/89	0	1	
RICH0047	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	12/06/89-12/06/89	0	1	
RICH0049	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	0	1	
RICH0060	No	71900	MERCURY, TOTAL (UG/L AS HG)	06/04/75-10/28/82	7	7	
RICH0061	No	71900	MERCURY, TOTAL (UG/L AS HG)	01/17/91-04/19/93	2	10	
RICH0065	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/19/93	22	31	
RICH0066	No	71900	MERCURY, TOTAL (UG/L AS HG)	01/29/73-11/17/77	4	8	
RICH0067	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/29/73-03/28/85	11	9	
RICH0069	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	12	15	
RICH0079	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/29/73-11/17/77	4	7	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0080	No	71900	MERCURY, TOTAL (UG/L AS HG)	10/26/72-11/17/77	5	9	
RICH0081	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/29/73-11/17/77	4	7	
RICH0083	No	71900	MERCURY, TOTAL (UG/L AS HG)	08/08/94-08/08/94	0	1	
RICH0084	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/04/91	3	5	
RICH0089	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	12	15	
RICH0094	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/06/72-04/28/93	20	23	
RICH0096	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	8	19	
RICH0100	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	1	4	
RICH0101	No	71900	MERCURY, TOTAL (UG/L AS HG)	10/26/72-03/28/85	12	14	
RICH0102	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/24/75-03/28/85	10	11	
RICH0103	No	71900	MERCURY, TOTAL (UG/L AS HG)	10/26/72-01/29/73	0	2	
RICH0105	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	12	14	
RICH0116	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/08/93	22	28	
RICH0120	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/15/71-11/01/78	7	19	
RICH0121	No	71900	MERCURY, TOTAL (UG/L AS HG)	10/24/79-09/03/81	1	11	
RICH0130	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	8	21	
RICH0131	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/04/91	3	27	
RICH0132	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	1	4	
RICH0134	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-06/01/93	22	29	
RICH0136	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	1	4	
RICH0143	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	8	19	
RICH0144	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	1	4	
RICH0145	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/04/91	3	24	
RICH0146	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/20/75-06/01/93	18	17	
RICH0147	No	71900	MERCURY, TOTAL (UG/L AS HG)	10/31/89-09/04/91	1	25	
RICH0016	No	71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/27/71-04/27/71	0	16	
RICH0023	No	71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	10/26/79-10/26/79	0	3	
RICH0024	No	71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	10/26/79-09/17/80	0	6	
RICH0090	No	71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/26/71-04/26/71	0	13	
RICH0097	No	71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/26/71-04/27/71	0	13	
RICH0098	No	71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/27/71-04/27/71	0	20	
RICH0005	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/30/80-05/19/81	0	2	
RICH0012	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	06/25/92-06/25/92	0	1	
RICH0019	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	1	2	
RICH0023	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/23/91-09/23/91	0	1	
RICH0036	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	1	2	
RICH0043	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0044	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	12/06/89-07/24/91	1	2	
RICH0045	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	0	2	
RICH0047	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	12/06/89-07/24/91	1	2	
RICH0048	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0051	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/24/91-07/24/91	0	1	
RICH0052	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0053	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/24/91-07/24/91	0	1	
RICH0054	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/24/91-07/24/91	0	2	
RICH0055	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	0	1	
RICH0056	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	0	2	
RICH0061	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/27/92-09/12/97	5	2	
RICH0065	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-07/27/92	12	3	
RICH0067	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	1	3	
RICH0083	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	08/26/80-08/14/89	8	3	
RICH0085	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	11/10/97-11/10/97	0	1	
RICH0094	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-08/27/92	12	4	
RICH0101	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	1	3	
RICH0102	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-10/25/79	0	1	
RICH0104	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	04/19/95-04/19/95	0	1	
RICH0116	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-08/27/92	12	4	
RICH0130	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	02/15/95-11/10/97	2	2	
RICH0134	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/12/81-07/21/92	11	2	
RICH0146	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/12/81-07/21/92	11	2	
RICH0012	No	71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	06/25/92-06/25/92	0	3	
RICH0016	No	71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	0	16	
RICH0023	No	71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-10/26/79	0	3	
RICH0024	No	71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-09/17/80	0	6	
RICH0090	No	71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-04/26/71	0	13	
RICH0097	No	71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-04/27/71	0	14	
RICH0098	No	71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	0	20	
RICH0129	No	71935	MERCURY, TOTAL IN FISH (PPM,WET WEIGHT BASIS)	10/01/77-10/01/86	9	15	
RICH0012	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	0	3	
RICH0016	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	16	
RICH0023	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-10/26/79	0	3	
RICH0024	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-09/17/80	0	6	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0090	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	0	13	
RICH0097	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	4	25	
RICH0098	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	20	
RICH0109	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	0	1	
RICH0129	No	71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/77-10/01/86	9	15	
RICH0012	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	0	3	
RICH0016	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	16	
RICH0023	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-10/26/79	0	3	
RICH0024	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-09/17/80	0	6	
RICH0090	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	0	13	
RICH0097	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	4	25	
RICH0098	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	20	
RICH0109	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	0	1	
RICH0129	No	71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/79-10/01/86	7	12	
RICH0012	No	71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	0	3	
RICH0016	No	71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	16	
RICH0090	No	71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	0	13	
RICH0097	No	71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	4	25	
RICH0098	No	71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	20	
RICH0109	No	71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	0	1	
RICH0129	No	71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/79-10/01/86	7	12	
RICH0012	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	0	3	
RICH0016	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	16	
RICH0023	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-10/26/79	0	3	
RICH0024	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-09/17/80	0	6	
RICH0090	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	0	13	
RICH0097	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	4	25	
RICH0098	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	0	20	
RICH0109	No	71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	0	1	
RICH0012	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	06/25/92-06/25/92	0	3	
RICH0016	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	0	16	
RICH0023	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-10/26/79	0	3	
RICH0024	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-09/17/80	0	6	
RICH0090	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-04/26/71	0	13	
RICH0097	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-08/27/75	4	25	
RICH0098	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	0	20	
RICH0109	No	71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	05/08/75-05/08/75	0	1	
RICH0050	Yes	72008	DEPTH, TOTAL OF WELL (FT BELOW LAND SURFACE DATUM)	11/30/76-11/30/76	0	1	
RICH0149	No	72020	ELEVATION IN FEET ABOVE MEAN SEA LEVEL	04/03/86-04/03/86	0	1	
RICH0039	Yes	73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73540	CARBMOTHACID,(1METHETH),S-(2,3DICL2PROP)ESTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73540	CARBMOTHACID,(1METHETH),S-(2,3DICL2PROP)ESTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73540	CARBMOTHACID,(1METHETH),S-(2,3DICL2PROP)ESTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73540	CARBMOTHACID,(1METHETH),S-(2,3DICL2PROP)ESTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73559	BENZÖAÉANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73559	BENZÖAÉANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73559	BENZÖAÉANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73559	BENZÖAÉANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73582	1,3-HBENZÓDIOXOLE, 5-(1-PROPYNL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73582	1,3-HBENZÓDIOXOLE, 5-(1-PROPYNL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73582	1,3-HBENZÓDIOXOLE, 5-(1-PROPYNL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73582	1,3-HBENZÓDIOXOLE, 5-(1-PROPYNL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73589	1,2-ETHDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73589	1,2-ETHDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73589	1,2-ETHDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73589	1,2-ETHDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0039	Yes	73591	BENZOJÉACEANTHRYLENE, 1,2-DIHYDRO-3-METHYLTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73591	BENZOJÉACEANTHRYLENE, 1,2-DIHYDRO-3-METHYLTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73591	BENZOJÉACEANTHRYLENE, 1,2-DIHYDRO-3-METHYLTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73591	BENZOJÉACEANTHRYLENE, 1,2-DIHYDRO-3-METHYLTOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73619	1-NITROSPIPERIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73619	1-NITROSPIPERIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73619	1-NITROSPIPERIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73619	1-NITROSPIPERIDINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	75042	HEXACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	75042	HEXACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	75042	HEXACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	75042	HEXACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	75042	HEXACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	75042	HEXACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0056	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	06/25/92-06/25/92	0	1	
RICH0023	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	09/23/91-09/23/91	0	1	
RICH0061	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	07/27/92-09/12/97	5	2	
RICH0065	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	07/27/92-07/27/92	0	1	
RICH0083	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	08/14/89-08/14/89	0	1	
RICH0085	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	11/10/97-11/10/97	0	1	
RICH0094	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	0	1	
RICH0104	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	04/19/95-04/19/95	0	1	
RICH0116	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	0	1	
RICH0130	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	02/15/95-11/10/97	2	2	
RICH0134	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	07/21/92-07/21/92	0	1	
RICH0146	No	75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	07/21/92-07/21/92	0	1	
RICH0043	Yes	75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	2	
RICH0043	Yes	75714	DIBENZO(BD)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	75714	DIBENZO(BD)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0048	Yes	75714	DIBENZO(BD)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	75714	DIBENZO(BD)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	75714	DIBENZO(BD)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	75714	DIBENZO(BD)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	0	2	
RICH0039	Yes	76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0039	Yes	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	0	1	
RICH0005	No	77825	ALACHLOR WHOLE WATER,UG/L	03/13/85-03/13/85	0	1	
RICH0019	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0036	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0065	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0067	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0094	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0101	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0102	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0116	No	77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	0	1	
RICH0134	No	77825	ALACHLOR WHOLE WATER,UG/L	03/06/85-03/06/85	0	1	
RICH0039	Yes	78109	ALLYLCHLORIDE, TOTAL, WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	78109	ALLYLCHLORIDE, TOTAL, WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	78109	ALLYLCHLORIDE, TOTAL, WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	78109	ALLYLCHLORIDE, TOTAL, WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	78206	N-NITROSOPIRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	78206	N-NITROSOPIRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	78206	N-NITROSOPIRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	78206	N-NITROSOPIRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0042	Yes	78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0043	Yes	78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	1	
RICH0056	Yes	78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	0	2	
RICH0129	No	79178	PCB-1242 TISDRYWTMG/KG	10/01/73-10/01/77	4	11	
RICH0129	No	79179	PCB-1254 TISDRYWTMG/KG	10/01/70-10/01/86	16	37	
RICH0129	No	79182	PCB-1248 TISDRYWTMG/KG	10/01/77-10/01/86	9	15	
RICH0129	No	79183	PCB-1260 TISDRYWTMG/KG	10/01/73-10/01/86	13	23	
RICH0043	Yes	79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY, WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0043	Yes	79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0045	Yes	79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0048	Yes	79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0052	Yes	79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH0055	Yes	79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	2	
RICH0056	Yes	79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	0	1	
RICH012	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	06/25/92-06/25/92	0	1	
RICH0023	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	09/23/91-09/23/91	0	1	
RICH0061	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	07/27/92-09/12/97	5	2	
RICH0065	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	07/27/92-07/27/92	0	1	
RICH0085	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	11/10/97-11/10/97	0	1	
RICH0094	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	0	1	
RICH0104	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	04/19/95-04/19/95	0	1	
RICH0116	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	0	1	
RICH0130	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	02/15/95-11/10/97	2	2	
RICH0134	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	07/21/92-07/21/92	0	1	
RICH0146	No	79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	07/21/92-07/21/92	0	1	
RICH0027	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/12/74-02/27/79	4	113	
RICH0084	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/04/91	3	5	
RICH0100	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	1	4	
RICH0121	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/25/80-09/03/81	1	17	
RICH0131	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-08/02/91	3	24	
RICH0132	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	1	4	
RICH0136	Yes	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	1	4	
RICH0144	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	1	4	
RICH0145	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/04/91	3	25	
RICH0147	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	10/31/89-07/29/91	1	23	
RICH0027	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	4	112	
RICH0121	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/25/80-09/03/81	1	17	
RICH0149	No	81024	DRAINAGE AREA IN SQUARE MILES (SQ. ML)	04/03/86-04/03/86	0	1	
RICH0039	Yes	81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0042	Yes	81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0129	No	81312	POLYCHLORINATEDBIPHENYLS FISH TISSUE WET WGT MG/KG	10/01/86-10/01/86	0	3	
RICH0043	Yes	81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	0	1	
RICH0045	Yes	81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	0	2	
RICH0048	Yes	81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	0	1	
RICH0052	Yes	81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	0	1	
RICH0055	Yes	81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	0	2	
RICH0056	Yes	81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	0	2	
RICH0039	Yes	81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	0	1	
RICH0004	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/06/79-04/06/79	0	6	
RICH0007	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/06/79-04/06/79	0	4	
RICH0012	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	06/25/92-06/25/92	0	3	
RICH0016	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/27/71-04/27/71	0	16	
RICH0023	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	10/26/79-10/26/79	0	3	
RICH0024	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	10/26/79-09/17/80	0	6	
RICH0090	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/26/71-04/26/71	0	13	
RICH0097	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/26/71-08/27/75	4	25	
RICH0098	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/27/71-04/27/71	0	20	
RICH0109	No	81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	3	120	
RICH0012	No	81644	METHOXYCHLOR IN FISH TISSUE,UG/G WET WEIGHT	06/25/92-06/25/92	0	2	
RICH0012	No	81645	MIREX IN FISH TISSUE WET WEIGHT UG/G	06/25/92-06/25/92	0	2	
RICH0129	No	81645	MIREX IN FISH TISSUE WET WEIGHT UG/G	10/01/81-10/01/86	5	9	
RICH0097	No	81665	VANADIUM IN FISH TISSUE WET WEIGHT MG/KG	05/23/75-08/27/75	0	11	
RICH0109	No	81665	VANADIUM IN FISH TISSUE WET WEIGHT MG/KG	05/08/75-05/08/75	0	1	
RICH0012	No	81742	SILVER IN FISH TISSUE WET WEIGHT (MG/KG)PPM	06/25/92-06/25/92	0	3	
RICH0012	No	81823	PENTACHLOROANISOLE(PCA)INFISH TISSUE WET WGT MG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	81823	PENTACHLOROANISOLE(PCA)INFISH TISSUE WET WGT MG/KG	10/01/81-10/01/86	5	9	
RICH0039	Yes	81888	DISULFOTON IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	81888	DISULFOTON IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	81888	DISULFOTON IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	81888	DISULFOTON IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	0	1	
RICH0004	No	81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	04/06/79-04/06/79	0	6	
RICH0007	No	81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	04/06/79-04/06/79	0	4	
RICH0012	No	81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	10/01/70-10/01/86	16	37	
RICH0012	No	81897	DDD TOTAL IN TISSUE WET WEIGHT MG/KG	06/25/92-06/25/92	0	2	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

**Station/Parameter Period of Record Tabulation**  
**From 07/30/45 To 12/15/98**

Station	In Park	Code	Name	Start - End	Years	Obs	Plots <sup>1</sup>
RICH0129	No	81944	DDT(INCLUDES DDE & DDD) IN TISSUE WET WEIGHT MG/KG	10/01/86-10/01/86	0	3	
RICH0129	No	81987	TOTAL SEDIMENT PARTICLE SIZE %COARSER THAN 9.00PHI	10/01/70-10/01/86	16	37	
RICH0129	No	82004	DACTHAL IN TISSUE SAMPLE WET WEIGHT MG/KG	10/01/79-10/01/86	7	12	
RICH0061	No	82007	PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	09/12/97-09/12/97	0	1	
RICH0085	No	82007	PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	11/10/97-11/10/97	0	1	
RICH0104	No	82007	PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	04/19/95-04/19/95	0	1	
RICH0130	No	82007	PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	02/15/95-11/10/97	2	2	
RICH0061	No	82008	SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	09/12/97-09/12/97	0	1	
RICH0085	No	82008	SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	11/10/97-11/10/97	0	1	
RICH0104	No	82008	SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	04/19/95-04/19/95	0	1	
RICH0130	No	82008	SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	02/15/95-11/10/97	2	2	
RICH0061	No	82009	SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	09/12/97-09/12/97	0	1	
RICH0085	No	82009	SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	11/10/97-11/10/97	0	1	
RICH0104	No	82009	SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	04/19/95-04/19/95	0	1	
RICH0130	No	82009	SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	02/15/95-11/10/97	2	2	
RICH0012	No	82029	OXYCHLORDANE IN TISSUE SAMPLE WET WEIGHT MG/KG	06/25/92-06/25/92	0	2	
RICH0129	No	82029	OXYCHLORDANE IN TISSUE SAMPLE WET WEIGHT MG/KG	10/01/79-10/01/86	7	12	
RICH0061	No	82032	CALCIUM - TOTAL UG/L (AS CA)	07/15/92-01/21/93	0	2	
RICH0065	No	82032	CALCIUM - TOTAL UG/L (AS CA)	07/15/92-01/21/93	0	2	
RICH0116	No	82032	CALCIUM - TOTAL UG/L (AS CA)	11/02/92-11/02/92	0	1	
RICH0134	No	82032	CALCIUM - TOTAL UG/L (AS CA)	09/02/92-03/03/93	0	3	
RICH0146	No	82032	CALCIUM - TOTAL UG/L (AS CA)	09/02/92-03/03/93	0	3	
RICH0061	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	04/02/92-04/05/94	2	8	
RICH0065	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	04/02/92-04/05/94	2	9	
RICH0134	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/04/91-06/08/94	2	12	
RICH0146	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/04/91-06/08/94	2	12	
RICH0149	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/03/86-04/03/86	0	1	
RICH0039	Yes	82191	2-NAPHTYLAMINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	82191	2-NAPHTYLAMINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	82191	2-NAPHTYLAMINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	82191	2-NAPHTYLAMINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	0	1	
RICH0039	Yes	82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0041	Yes	82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0042	Yes	82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0049	Yes	82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	0	1	
RICH0027	No	82398	SAMPLING METHOD (CODES)	01/13/75-01/13/75	0	1	
RICH0149	No	83509	STREAM, WIDTH METER	04/03/86-04/03/86	0	1	
RICH0050	Yes	84000	GEOLOGIC AGE CODE (SEE USGS CATALOG)	11/30/76-07/25/78	1	2	
RICH0050	Yes	84001	AQUIFER NAME CODE (SEE USGS CATALOG)	11/30/76-07/25/78	1	2	
RICH0004	No	84007	ANATOMY ALPHA CODE	04/06/79-04/06/79	0	6	
RICH0007	No	84007	ANATOMY ALPHA CODE	04/06/79-04/06/79	0	4	
RICH0012	No	84007	ANATOMY ALPHA CODE	06/25/92-06/25/92	0	3	
RICH0016	No	84007	ANATOMY ALPHA CODE	04/27/71-04/27/71	0	16	
RICH0023	No	84007	ANATOMY ALPHA CODE	10/26/79-10/26/79	0	3	
RICH0024	No	84007	ANATOMY ALPHA CODE	10/26/79-09/17/80	0	6	
RICH0090	No	84007	ANATOMY ALPHA CODE	04/26/71-04/26/71	0	13	
RICH0097	No	84007	ANATOMY ALPHA CODE	04/26/71-08/27/75	4	25	
RICH0098	No	84007	ANATOMY ALPHA CODE	04/27/71-04/27/71	0	20	
RICH0109	No	84007	ANATOMY ALPHA CODE	05/08/75-04/12/79	3	120	
RICH0004	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	04/06/79-04/06/79	0	6	
RICH0007	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	04/06/79-04/06/79	0	4	
RICH0016	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	04/27/71-04/27/71	0	16	
RICH0023	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	10/26/79-10/26/79	0	3	
RICH0024	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	10/26/79-09/17/80	0	6	
RICH0090	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	04/26/71-04/26/71	0	13	
RICH0097	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	04/26/71-08/27/75	4	25	
RICH0098	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	04/27/71-04/27/71	0	20	
RICH0109	No	84008	LIFE STYLE/HABITAT OF THEINDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	3	120	

<sup>1</sup>T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

## **Station-By-Station Results**



## Station Inventory for Station: RICH0001

NPS Station ID: RICH0001  
 Location: AER-O-FLOW TERTIARY TREATMENT PACKAGE AT SUNOCO  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080207  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080207  
 RF3 Index: 02080206004510.25  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: UNNAME ASHTON CRK SECTION: 02B TOPO MAP #: 0133 TOPO MAP NAME: CHESTER, VA

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-XHF000.38 /VA2-02BX0266/VA2-4X0266  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 10.38

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.03

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0001

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/26/73-11/25/74	11	18.3	17.009	24.4	7.2	24.493	4.949	8.2	13.9	21.1	23.96
00300	OXYGEN, DISSOLVED MG/L	10/26/73-11/25/74	11	11.2	10.536	15.4	6.2	10.225	3.198	6.26	7.8	13.6	15.04
00310	BOD, 5 DAY, 20 DEG C MG/L	10/26/73-11/25/74	11	2.	4.227	11.	0.5	14.918	3.862	0.5	0.5	7.	10.6
00400	PH (STANDARD UNITS)	10/26/73-11/25/74	10	5.55	5.66	7.	4.	1.065	1.032	4.	5.125	6.55	6.97
00400	CONVERTED PH (STANDARD UNITS)	10/26/73-11/25/74	10	5.547	4.671	7.	4.	2.151	1.467	4.	5.125	6.55	6.97
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/26/73-11/25/74	10	2.837	21.312	100.	0.1	1721.654	41.493	0.11	0.287	27.372	100.
00403	PH, LAB, STANDARD UNITS SU	10/26/73-11/25/74	11	6.3	5.982	7.	3.2	1.756	1.325	3.28	5.9	6.8	6.98
00403	CONVERTED PH, LAB, STANDARD UNITS	10/26/73-11/25/74	11	6.3	4.094	7.	3.2	5.676	2.382	3.28	5.9	6.8	6.98
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/26/73-11/25/74	11	0.501	80.522	630.957	0.1	38988.416	197.455	0.105	0.158	1.259	555.004
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/26/73-11/25/74	11	27.	32.455	84.	8.	529.073	23.002	8.4	16.	50.	78.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/26/73-11/25/74	11	0.3	5.041	26.	0.05	70.101	8.373	0.05	0.05	11.	23.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/26/73-11/25/74	11	0.02	0.068	0.29	0.005	0.008	0.092	0.005	0.005	0.12	0.262
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/26/73-11/25/74	11	2.649	9.775	48.19	0.6	248.189	15.754	0.67	1.5	9.	45.126
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/26/73-11/25/74	11	0.7	7.327	42.	0.05	170.45	13.056	0.05	0.1	16.	36.8
00940	CHLORIDE, TOTAL IN WATER MG/L	11/28/73-05/29/74	2	56.	56.	84.	28.	1568.	39.598	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	12/07/73-12/07/73	1##	5.	5.	5.	0.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	12/07/73-12/07/73	1##	5.	5.	5.	0.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	12/07/73-12/07/73	1##	5.	5.	5.	0.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	12/07/73-12/07/73	1##	5.	5.	5.	0.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	12/07/73-12/07/73	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	12/07/73-12/07/73	1	30.	30.	30.	30.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/28/73-11/25/74	10##	50.	695.	6000.	50.	3485250.	1866.882	50.	50.	300.	5430.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/28/73-11/25/74	10##	1.699	2.063	3.778	1.699	0.468	0.684	1.699	1.699	2.477	3.648
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	115.483								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	12/07/73-10/23/74	4	3.	3.	3.	3.	0.	0.	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	10/26/73-11/25/74	11	0.6	1.845	9.	0.2	6.759	2.6	0.22	0.4	2.	7.94
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/26/73-11/25/74	11	0.7	1.759	9.	0.1	6.822	2.612	0.13	0.3	2.	7.9
71900	MERCURY, TOTAL (UG/L AS HG)	12/07/73-12/07/73	1##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0001

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	11	0	0.00	2	0	0.00	7	0	0.00	2	0	0.00			
00400 PH	Fresh Chronic	9.	10	0	0.00	2	0	0.00	7	0	0.00	1	0	0.00			
00403 PH, LAB	Other-Lo Lim.	6.5	10	8	0.80	2	1	0.50	7	6	0.86	1	1	1.00			
	Fresh Chronic	9.	11	0	0.00	2	0	0.00	7	0	0.00	2	0	0.00			
	Other-Lo Lim.	6.5	11	6	0.55	2	0	0.00	7	5	0.71	2	1	0.50			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	2	0	0.00	7	0	0.00	2	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	2	0.18	2	0	0.00	7	1	0.14	2	1	0.50			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	2	0	0.00				1	0	0.00	1	0	0.00			
	Drinking Water	250.	2	0	0.00				1	0	0.00	1	0	0.00			
01027 CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
	Drinking Water	5.	0 &	0	0.00												
01034 CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
01042 COPPER, TOTAL	Fresh Acute	18.	1	0	0.00				1	0	0.00						
01051 LEAD, TOTAL	Drinking Water	1300.	1	0	0.00				1	0	0.00						
	Fresh Acute	82.	1	0	0.00				1	0	0.00						
	Drinking Water	15.	1	0	0.00				1	0	0.00						
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00				1	0	0.00						
	Drinking Water	100.	1	0	0.00				1	0	0.00						
01092 ZINC, TOTAL	Fresh Acute	120.	1	0	0.00				1	0	0.00						
	Drinking Water	5000.	1	0	0.00				1	0	0.00						
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	10	3	0.30	2	2	1.00	6	0	0.00	2	1	0.50			
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	4	4	1.00				4	4	1.00						
71900 MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00				1	0	0.00						
	Drinking Water	2.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0002

NPS Station ID: RICH0002  
 Location: BUOY 9  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080207  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080207001  
 RF3 Index: 02080207000314.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: APPOMATTOX RIVER SECTION: 02A TOPO MAP #: 0138 TOPO MAP NAME: HOPEWELL, VA  
 THIS STATION IS ALSO USED FOR SURVEY 835108

LAT/LON: 37.312226/ -77.350309

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-APP004.69 /VA2-02AX0005/VA2-4X0005  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 4.090  
 RF3 Mile Point: 17.28

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.13

On/Off RF1: OFF  
 On/Off RF3:

## Parameter Inventory for Station: RICH0002

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/02/72-03/24/78	33	26.1	23.409	30.	4.4	36.298	6.025	14.48	20.3	27.8	28.9
00300	OXYGEN, DISSOLVED MG/L	05/02/72-03/24/78	36	8.	8.344	16.8	5.8	4.133	2.033	6.	7.05	9.35	10.69
00400	PH (STANDARD UNITS)	05/02/72-03/24/78	36	7.2	7.325	8.5	6.5	0.214	0.463	6.91	7.	7.5	8.
00400	CONVERTED PH (STANDARD UNITS)	05/02/72-03/24/78	36	7.2	7.139	8.5	6.5	0.25	0.5	6.91	7.	7.5	8.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/02/72-03/24/78	36	0.063	0.073	0.316	0.003	0.004	0.064	0.01	0.032	0.1	0.13
00510	RESIDUE, TOTAL FIXED (MG/L)	08/09/72-08/09/72	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/05/72-09/05/72	1	25.	25.	25.	25.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/09/72-09/05/72	2	6.	6.	6.	6.	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/09/72-09/05/72	2	19.5	19.5	20.	19.	0.5	0.707	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/08/72-03/24/78	32	0.1	0.119	0.5	0.05	0.008	0.092	0.05	0.05	0.19	0.2
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/08/72-03/24/78	32 ##	0.005	0.009	0.05	0.005	0.	0.009	0.005	0.005	0.01	0.017
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/08/72-08/13/76	31	0.15	0.173	0.41	0.01	0.008	0.088	0.06	0.12	0.21	0.31
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/08/72-03/24/78	32	0.4	0.441	0.7	0.2	0.013	0.116	0.3	0.4	0.5	0.6
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/24/78-03/24/78	1	0.22	0.22	0.22	0.22	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	08/09/72-09/05/72	2	6.	6.	9.	3.	18.	4.243	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	05/02/72-05/27/76	2 ##	1.75	1.75	2.5	1.	1.125	1.061	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-05/27/76	5 ##	5.	6.	10.	5.	5.	2.236	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/02/72-05/27/76	8 ##	7.5	7.5	10.	5.	7.143	2.673	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	05/02/72-05/27/76	8 ##	5.	5.625	10.	5.	3.125	1.768	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	05/02/72-05/27/76	7 ##	5.	6.	11.	1.	11.667	3.416	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/27/76	3 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/02/72-05/27/76	8 ##	5.	5.625	10.	5.	3.125	1.768	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/02/72-03/24/78	35 ##	50.	325.714	4500.	50.	624172.269	790.046	50.	50.	200.	1000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/02/72-03/24/78	35 ##	1.699	2.07	3.653	1.699	0.264	0.513	1.699	1.699	2.301	3.
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			117.43								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	07/08/72-03/24/78	32 ##	0.075	0.081	0.2	0.05	0.002	0.04	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/08/72-03/24/78	32	0.05	0.053	0.11	0.01	0.001	0.023	0.03	0.043	0.05	0.097
71900	MERCURY, TOTAL (UG/L AS HG)	05/02/72-05/27/76	8 ##	0.25	0.638	2.5	0.25	0.655	0.809	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0002

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	36	0	0.00	19	0	0.00	2	0	0.00	15	0	0.00
00400 PH	Fresh Chronic	9.	36	0	0.00	19	0	0.00	2	0	0.00	15	0	0.00
	Other-Lo Lim.	6.5	36	1	0.03	19	0	0.00	2	0	0.00	15	1	0.07
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	32	0	0.00	16	0	0.00	2	0	0.00	14	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	31	0	0.00	16	0	0.00	2	0	0.00	13	0	0.00
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	2	0	0.00	2	0	0.00						
	Drinking Water	250.	2	0	0.00	2	0	0.00						
01002 ARSENIC, TOTAL	Fresh Acute	360.	2	0	0.00							2	0	0.00
	Drinking Water	50.	2	0	0.00							2	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1 &	1	1.00							1	1	1.00
	Drinking Water	5.	1 &	1	1.00							1	1	1.00
01034 CHROMIUM, TOTAL	Drinking Water	100.	8	0	0.00	3	0	0.00				5	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	8	0	0.00	3	0	0.00				5	0	0.00
	Drinking Water	1300.	8	0	0.00	3	0	0.00				5	0	0.00
01051 LEAD, TOTAL	Fresh Acute	82.	7	0	0.00	3	0	0.00				4	0	0.00
	Drinking Water	15.	7	0	0.00	3	0	0.00				4	0	0.00
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	3	0	0.00							3	0	0.00
	Drinking Water	100.	3	0	0.00							3	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	8	0	0.00	3	0	0.00				5	0	0.00
	Drinking Water	5000.	8	0	0.00	3	0	0.00				5	0	0.00
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	35	11	0.31	19	7	0.37	2	0	0.00	14	4	0.29
71900 MERCURY, TOTAL	Fresh Acute	2.4	7 &	0	0.00	2	0	0.00				5	0	0.00
	Drinking Water	2.	7 &	0	0.00	2	0	0.00				5	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0003

NPS Station ID: RICH0003  
 Location: RT. 620 BRIDGE NEAR WALTHALL  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080207  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080207  
 RF3 Index: 02080207116800.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: ASHTON CREEK SECTION: 02B TOPO MAP #: 0133 TOPO MAP NAME: CHESTER, VA

LAT/LON: 37.314781/ -77.395782

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-ASH002.73 /VA2-02BX0028/VA2-4X0028  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.03

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0003

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/22/79	63	17.8	15.749	31.1	0.6	62.68	7.917	4.4	7.8	23.	25.36
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	63	8.4	8.365	13.2	0.6	6.809	2.609	5.38	6.8	10.4	11.84
00400	PH (STANDARD UNITS)	04/19/73-06/22/79	61	6.9	6.818	7.5	4.5	0.174	0.417	6.5	6.5	7.	7.3
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/22/79	61	6.9	6.163	7.5	4.5	0.609	0.781	6.5	6.5	7.	7.3
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/22/79	61	0.126	0.686	31.623	0.032	16.228	4.028	0.05	0.1	0.316	0.316
00403	PH, LAB, STANDARD UNITS SU	01/03/75-01/03/75	1	6.4	6.4	6.4	6.4	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	01/03/75-01/03/75	1	6.4	6.4	6.4	6.4	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/03/75-01/03/75	1	0.398	0.398	0.398	0.398	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/03/75-01/03/75	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	65	0.5	0.711	4.399	0.05	0.516	0.718	0.1	0.2	1.	1.599
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	65	0.02	0.044	0.31	0.005	0.004	0.062	0.005	0.005	0.05	0.142
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-05/26/78	51	0.34	0.365	1.279	0.05	0.044	0.209	0.122	0.24	0.42	0.59
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	65	1.2	1.538	6.599	0.2	1.69	1.3	0.5	0.7	1.8	3.699
00630	NITRITE PLUS NITRATE, TOTAL 1 DET., (MG/L AS N)	06/22/77-06/22/79	14	0.42	0.509	1.2	0.14	0.075	0.274	0.195	0.318	0.7	1.
00940	CHLORIDE, TOTAL IN WATER MG/L	01/23/78-01/23/78	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	11/24/75-05/24/79	7##	1.	1.071	1.5	1.	0.036	0.189	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/12/76-05/24/79	6##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/14/73-05/24/79	12 ##	5.	5.833	10.	5.	3.788	1.946	5.	5.	5.	10.
01042	COPPER, TOTAL (UG/L AS CU)	05/14/73-05/24/79	12 ##	5.	5.833	10.	5.	3.788	1.946	5.	5.	5.	10.
01045	IRON, TOTAL (UG/L AS FE)	11/02/78-05/24/79	2	1810.	1810.	2120.	1500.	192200.	438.406	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	12/07/73-05/24/79	10	4.	5.7	20.	1.	34.678	5.889	1.	1.75	7.25	19.1
01055	MANGANESE, TOTAL (UG/L AS MN)	11/02/78-05/24/79	2	80.	80.	100.	60.	800.	28.284	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/14/73-05/24/79	11 ##	50.	41.818	50.	5.	331.364	18.203	5.	50.	50.	50.
01092	ZINC, TOTAL (UG/L AS ZN)	05/14/73-05/24/79	12 ##	7.5	10.	20.	5.	40.909	6.396	5.	5.	17.5	20.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	66 ##	50.	226.515	2300.	50.	182170.746	426.815	50.	50.	100.	830.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	66 ##	1.699	1.978	3.362	1.699	0.226	0.475	1.699	1.699	2.	2.918
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	94.968							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	65	0.4	0.806	3.8	0.05	0.943	0.971	0.1	0.2	0.85	2.5
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	65	0.38	0.692	3.599	0.03	0.7	0.837	0.096	0.17	0.8	2.319
71900	MERCURY, TOTAL (UG/L AS HG)	05/14/73-05/24/79	12 ##	0.25	0.206	0.25	0.025	0.005	0.072	0.063	0.15	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0003

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	63	4	0.06	16	3	0.19	26	0	0.00	21	1	0.05			
00400 PH	Fresh Chronic	9.	61	0	0.00	16	0	0.00	24	0	0.00	21	0	0.00			
00403 PH, LAB	Other-Lo Lim.	6.5	61	18	0.30	16	3	0.19	24	5	0.21	21	10	0.48			
00615 NITRITE NITROGEN, TOTAL AS N	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	1.	65	0	0.00	16	0	0.00	27	0	0.00	22	0	0.00			
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	51	0	0.00	13	0	0.00	22	0	0.00	16	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Drinking Water	10.	14	0	0.00	3	0	0.00	5	0	0.00	6	0	0.00			
	Fresh Acute	860.	1	0	0.00				1	0	0.00						
	Drinking Water	250.	1	0	0.00				1	0	0.00						
01002 ARSENIC, TOTAL	Fresh Acute	360.	7	0	0.00				3	0	0.00	4	0	0.00			
01027 CADMIUM, TOTAL	Drinking Water	50.	7	0	0.00				3	0	0.00	4	0	0.00			
01034 CHROMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
01042 COPPER, TOTAL	Drinking Water	5.	0 &	0	0.00												
01051 LEAD, TOTAL	Drinking Water	100.	12	0	0.00				5	0	0.00	7	0	0.00			
01065 NICKEL, DISSOLVED	Fresh Acute	18.	12	0	0.00				5	0	0.00	7	0	0.00			
01092 ZINC, TOTAL	Drinking Water	1300.	12	0	0.00				5	0	0.00	7	0	0.00			
	Fresh Acute	82.	10	0	0.00				5	0	0.00	5	0	0.00			
	Drinking Water	15.	10	1	0.10				5	0	0.00	5	1	0.20			
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Fresh Acute	1400.	11	0	0.00				4	0	0.00	7	0	0.00			
71900 MERCURY, TOTAL	Drinking Water	100.	11	0	0.00				4	0	0.00	7	0	0.00			
	Fresh Acute	120.	12	0	0.00				5	0	0.00	7	0	0.00			
	Drinking Water	5000.	12	0	0.00				5	0	0.00	7	0	0.00			
	Other-Hi Lim.	200.	65 &	13	0.20	16	3	0.19	27	2	0.07	22	8	0.36			
	Fresh Acute	2.4	12	0	0.00				5	0	0.00	7	0	0.00			
	Drinking Water	2.	12	0	0.00				5	0	0.00	7	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1973 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	8	7.4	7.7	11.	6.	2.869	1.694	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	8	0.25	0.431	1.799	0.05	0.33	0.575	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	8 ##	0.008	0.034	0.2	0.005	0.005	0.068	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	8	1.199	1.5	4.099	0.7	1.214	1.102	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	8 ##	50.	62.5	100.	50.	535.714	23.146	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	8 ##	1.699	1.774	2.	1.699	0.019	0.139	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			59.46								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	8	0.7	0.938	2.5	0.3	0.523	0.723	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	8	0.6	0.85	2.5	0.2	0.566	0.752	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	12	9.1	8.733	11.6	4.2	4.759	2.181	4.92	6.85	10.35	11.54
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	13	0.5	0.707	1.799	0.1	0.25	0.5	0.14	0.3	1.05	1.599
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	13	0.02	0.04	0.13	0.005	0.002	0.048	0.005	0.005	0.085	0.126
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	13	1.299	1.492	3.699	0.5	0.867	0.931	0.54	0.7	2.199	3.219
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	13 ##	50.	65.385	200.	50.	1826.923	42.743	50.	50.	50.	160.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	13 ##	1.699	1.768	2.301	1.699	0.033	0.18	1.699	1.699	1.699	2.181
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			58.673								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	13	0.9	1.092	3.6	0.2	0.964	0.982	0.24	0.3	1.35	3.16
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	13	0.6	0.988	3.599	0.05	1.076	1.037	0.07	0.25	1.35	3.159

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	9	8.2	7.711	12.	0.6	10.871	3.297	0.6	6.5	10.1	12.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	10	0.5	0.54	1.599	0.1	0.209	0.457	0.11	0.2	0.7	1.539
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	10 ##	0.008	0.015	0.04	0.005	0.	0.013	0.005	0.005	0.023	0.039
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	10	0.8	0.88	1.599	0.3	0.239	0.489	0.3	0.375	1.324	1.579
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	10 ##	50.	195.	1100.	50.	113027.778	336.196	50.	50.	175.	1030.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	10 ##	1.699	1.954	3.041	1.699	0.229	0.478	1.699	1.699	2.151	2.997
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			89.872								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	10	0.2	0.31	0.6	0.1	0.041	0.202	0.11	0.2	0.6	0.6
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	10	0.1	0.232	0.6	0.05	0.047	0.217	0.055	0.1	0.45	0.6

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	12	9.25	8.6	13.2	3.	11.204	3.347	3.3	5.7	11.6	12.96
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	12	0.75	0.983	2.599	0.2	0.532	0.729	0.23	0.45	1.449	2.419
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	12	0.035	0.055	0.2	0.005	0.004	0.063	0.005	0.009	0.08	0.188
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	12	1.349	2.349	5.799	0.7	3.315	1.821	0.73	0.925	4.224	5.529
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	12 ##	50.	308.333	2300.	50.	417196.97	645.908	50.	50.	325.	1760.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/19/73-06/22/79	12 ##	1.699	2.021	3.362	1.699	0.311	0.558	1.699	1.699	2.452	3.163
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			105.005								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	12	0.55	1.367	3.8	0.2	2.079	1.442	0.23	0.325	2.85	3.8

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	12	0.42	0.989	2.549	0.17	0.946	0.973	0.173	0.283	2.112	2.534

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	8	8.1	8.525	13.2	3.6	11.019	3.32	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	8	0.75	1.175	4.399	0.1	1.861	1.364	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	8	0.03	0.065	0.22	0.005	0.007	0.081	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	8	1.4	2.	6.599	0.6	3.987	1.997	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	9##	50.	272.222	1000.	50.	135694.444	368.367	50.	50.	550.	1000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	9##	1.699	2.097	3.	1.699	0.301	0.549	1.699	1.699	2.69	3.
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	125.092							
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	8	0.5	0.925	3.5	0.05	1.361	1.167	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	8	0.49	0.875	3.5	0.08	1.328	1.152	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	9	8.2	8.656	12.8	6.8	4.053	2.013	6.8	7.05	9.9	12.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	9	0.4	0.567	1.5	0.1	0.285	0.534	0.1	0.15	1.1	1.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	9	0.02	0.059	0.31	0.005	0.009	0.097	0.005	0.01	0.06	0.31
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	9	0.9	1.211	2.5	0.5	0.651	0.807	0.5	0.55	2.1	2.5
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	9##	50.	305.556	1400.	50.	245277.778	495.255	50.	50.	500.	1400.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	9##	1.699	2.066	3.146	1.699	0.33	0.574	1.699	1.699	2.477	3.146
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	116.449							
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	9	0.2	0.261	0.8	0.05	0.055	0.234	0.05	0.1	0.35	0.8
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	9	0.17	0.286	0.8	0.03	0.059	0.242	0.03	0.115	0.435	0.8

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	5	7.8	8.38	11.4	6.	4.832	2.198	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	5	0.3	0.37	0.8	0.05	0.085	0.291	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	5	0.05	0.043	0.1	0.005	0.001	0.038	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	5	1.2	0.94	1.3	0.2	0.208	0.456	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	5	200.	550.	1700.	50.	480000.	692.82	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	5	2.301	2.415	3.23	1.699	0.387	0.622	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	260.081							
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	5	0.2	0.29	0.8	0.05	0.091	0.301	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	5	0.18	0.314	0.8	0.06	0.084	0.291	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/22/79	15	23.9	22.627	26.7	17.8	8.894	2.982	18.46	18.9	25.	26.58
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	16	6.45	6.1	10.4	0.6	5.631	2.373	2.28	4.525	7.55	9.14
00400	PH (STANDARD UNITS)	04/19/73-06/22/79	16	7.	6.95	7.5	6.5	0.085	0.292	6.5	6.725	7.075	7.36
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/22/79	16	7.	6.858	7.5	6.5	0.094	0.307	6.5	6.725	7.075	7.36
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	04/19/73-06/22/79	16	0.1	0.139	0.316	0.032	0.009	0.097	0.045	0.085	0.189	0.316
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	16	0.75	1.15	4.399	0.2	1.296	1.139	0.2	0.225	1.749	3.139
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	16	0.05	0.098	0.31	0.005	0.009	0.095	0.005	0.02	0.19	0.247
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	16	2.	2.562	6.599	0.3	4.041	2.01	0.37	0.925	3.999	6.039
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	16 ##	50.	153.125	1000.	50.	59156.25	243.221	50.	50.	100.	580.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	16 ##	1.699	1.95	3.	1.699	0.149	0.385	1.699	1.699	2.	2.721
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =			89.046					
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	16	1.05	1.663	3.8	0.2	2.075	1.44	0.2	0.375	3.375	3.8
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	16	0.95	1.408	3.599	0.1	1.496	1.223	0.1	0.333	2.5	3.53

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/22/79	26	7.5	8.523	18.9	0.6	22.311	4.723	2.64	4.85	12.2	14.65
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	26	10.9	10.504	13.2	6.6	2.962	1.721	8.08	9.	11.7	12.92
00400	PH (STANDARD UNITS)	04/19/73-06/22/79	24	6.8	6.85	7.3	6.4	0.069	0.262	6.5	6.7	7.	7.3
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/22/79	24	6.8	6.777	7.3	6.4	0.074	0.272	6.5	6.7	7.	7.3
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	04/19/73-06/22/79	24	0.158	0.167	0.398	0.05	0.01	0.099	0.05	0.1	0.2	0.316
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	27	0.7	0.705	1.599	0.05	0.182	0.427	0.1	0.4	1.	1.32
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	27 ##	0.005	0.017	0.07	0.005	0.	0.018	0.005	0.005	0.02	0.05
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	27	1.299	1.225	2.4	0.3	0.338	0.581	0.5	0.7	1.599	2.219
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	28 ##	50.	208.929	2300.	50.	269824.735	519.447	50.	50.	50.	620.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	28 ##	1.699	1.87	3.362	1.699	0.203	0.45	1.699	1.699	1.699	2.752
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =			74.176					
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	27	0.4	0.444	1.1	0.05	0.086	0.294	0.09	0.2	0.6	0.92
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	27	0.34	0.38	1.	0.03	0.06	0.245	0.082	0.18	0.5	0.74

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/22/79	22	20.3	19.6	31.1	2.1	38.596	6.213	10.9	17.075	23.9	25.88
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/22/79	21	7.2	7.443	10.2	4.	2.239	1.496	5.44	6.7	8.6	9.68
00400	PH (STANDARD UNITS)	04/19/73-06/22/79	21	6.8	6.681	7.5	4.5	0.344	0.586	6.42	6.5	7.	7.24
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/22/79	21	6.8	5.77	7.5	4.5	1.214	1.102	6.42	6.5	7.	7.24
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	04/19/73-06/22/79	21	0.158	1.697	31.623	0.032	47.029	6.858	0.06	0.1	0.316	0.382
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/22/79	22	0.3	0.398	2.	0.05	0.17	0.412	0.1	0.1	0.5	0.7
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/22/79	22	0.02	0.038	0.16	0.005	0.002	0.042	0.005	0.009	0.063	0.1
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/22/79	22	0.9	1.177	4.399	0.2	0.786	0.887	0.53	0.675	1.324	2.269
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	22 ##	75.	302.273	1400.	50.	164161.255	405.168	50.	50.	475.	1040.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/22/79	22 ##	1.849	2.134	3.146	1.699	0.291	0.54	1.699	1.699	2.663	3.015
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =			136.299					
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	22	0.3	0.627	2.5	0.05	0.525	0.724	0.065	0.2	0.875	2.19
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	22	0.2	0.554	2.5	0.05	0.454	0.674	0.066	0.1	0.875	1.744

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0004

NPS Station ID: RICH0004  
 Location: SHTON CK, NEAR RT 620 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080207  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080207  
 RF3 Index: 02080206004103.91  
 Description:  
 CHESAPEAKE BAY PROGRAM TISSUE AND SEDIMENT DATA ALL DATA FROM VIRGINIA STATE WATER CONTROL BOARD UNLESS OTHERWISE DESIGNATED  
 SPECIAL STUDY B79-014 DES 8-30-79/

LAT/LON: 37.314781/ -77.395782

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): XQL8937  
 Within Park Boundary: No

Date Created: 11/08/80

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 5.31

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.34

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0004

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34686	HEPTACHLOR EPOXIDE WET WT/TISMG/KG	04/06/79-04/06/79	2	0.015	0.015	0.02	0.01	0.007	**	**	**	**	**
39329	O,P DDE IN TISSUE, WET WGT(UG/G)	04/06/79-04/06/79	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
39406	DIELDRIN IN AQ ORGANISMS WT WGT BASIS (UG/G)	04/06/79-04/06/79	1	50.	50.	50.	50.	0.	0.	**	**	**	**
39515	PCBS (MG/KG) FISH TISSUE MG/KG	04/06/79-04/06/79	6	0.17	0.215	0.49	0.08	0.025	0.158	**	**	**	**
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/06/79-04/06/79	6	1.5	1.667	3.	1.	0.667	0.816	**	**	**	**
81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	04/06/79-04/06/79	6	0.035	0.045	0.09	0.02	0.001	0.029	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0005

NPS Station ID: RICH0005

Location: RT. 746 BRIDGE, CONF. WITH APPOMATTOX RIVER

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080207

Major Basin: 02-NORTH ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080207002

RF3 Index: 02080207000506.25

Description:

VIRGINIA STATE WATER CONTROL BOARD  
RIVER: ASHTON CREEK

LAT/LON: 37.316865/ -77.373142

AMBIENT MONITORING

SECTION: 02B

TOPO MAP #: 0138

TOPO MAP NAME: HOPEWELL, VA

Agency: 21VASWCB

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): 2-ASH001.26 /VA2-02BX0027/VA2-4X0027

Within Park Boundary: No

Date Created: / /

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 0.390

RF3 Mile Point: 6.25

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.02

On/Off RF1: OFF

On/Off RF3:

### Parameter Inventory for Station: RICH0005

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	184	14.5	14.342	28.2	0.5	59.536	7.716	4.	7.5	21.9	24.2
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/05/83-04/09/85	13	13.	11.923	29.	3.	51.41	7.17	3.4	5.	15.5	24.6
00070	TURBIDITY, (JACKSON CANDLE UNITS)	11/09/88-06/19/90	18	15.2	18.639	87.	5.7	306.639	17.511	8.67	12.75	17.75	29.4
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	110	78.	86.718	536.	1.	2710.461	52.062	56.	67.75	90.	107.9
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/24/89-06/19/90	10	84.	87.2	151.	59.	591.511	24.321	60.1	76.75	88.25	144.8
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	184	9.15	9.097	14.5	1.6	5.518	2.349	6.1	7.2	10.8	12.45
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	119	1.	1.647	10.	0.5	1.353	1.163	1.	1.	2.	3.
00340	COD, 25N K2CR2O7 MG/L	08/14/79-06/19/90	119	15.	15.324	50.	0.5	48.82	6.987	8.	11.	19.	24.
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	182	6.55	6.734	8.7	5.	0.412	0.642	6.	6.3	7.1	7.5
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	182	6.547	6.322	8.7	5.	0.583	0.764	6.	6.3	7.1	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	182	0.284	0.477	10.	0.002	1.023	1.012	0.032	0.079	0.501	1.
00403	PH, LAB, STANDARD UNITS SU	01/03/75-06/19/90	21	6.4	6.371	6.9	5.8	0.062	0.249	6.02	6.25	6.5	6.76
00403	CONVERTED PH, LAB, STANDARD UNITS	01/03/75-06/19/90	21	6.4	6.302	6.9	5.8	0.067	0.259	6.02	6.25	6.5	6.76
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/03/75-06/19/90	21	0.398	0.499	1.585	0.126	0.104	0.322	0.177	0.316	0.566	0.959
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/03/75-06/19/90	21	9.	8.762	13.	4.	5.59	2.364	5.	7.5	10.	11.8
00500	RESIDUE, TOTAL (MG/L)	08/14/79-06/19/90	20	77.	85.65	226.	47.	1501.503	38.749	55.5	68.	89.75	138.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	08/14/79-06/19/90	20	20.	24.2	44.	12.	80.589	8.977	16.	19.	30.	41.4
00510	RESIDUE, TOTAL FIXED (MG/L)	08/14/79-06/19/90	21	54.	60.619	184.	31.	978.548	31.282	40.6	46.	60.	93.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	119	6.	9.235	142.	0.5	226.135	15.038	2.5	2.5	10.	15.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	120	2.5	3.883	22.	0.	9.411	3.068	1.	2.5	5.	6.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	120	3.	6.079	126.	0.	159.714	12.638	1.	2.5	5.75	11.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	183 ##	0.05	0.162	1.399	0.02	0.052	0.229	0.05	0.05	0.2	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	182 ##	0.005	0.017	0.18	0.005	0.001	0.028	0.005	0.005	0.01	0.047
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	169	0.33	0.369	1.419	0.	0.053	0.231	0.15	0.21	0.47	0.6
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	180	0.5	0.556	1.699	0.05	0.114	0.338	0.2	0.3	0.7	1.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/22/77-06/22/79	13	0.6	0.762	1.6	0.26	0.151	0.389	0.336	0.5	1.	1.48
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	117	0.1	0.099	0.5	0.005	0.005	0.069	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	119	0.04	0.051	0.3	0.01	0.002	0.044	0.02	0.03	0.06	0.09
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	112	6.	6.701	17.	2.	7.636	2.763	3.36	5.	8.825	10.49
00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/13/85-06/19/90	16	18.	19.188	28.	14.	10.296	3.209	15.4	18.	20.75	23.8
00940	CHLORIDE, TOTAL IN WATER MG/L	10/18/88-06/19/90	18	11.	13.5	47.	7.	76.735	8.76	7.9	10.	14.5	19.1
00945	SULFATE, TOTAL (MG/L AS SO4)	02/27/89-06/19/90	16	8.	8.813	14.	5.	5.363	2.316	5.7	7.25	10.75	12.6
00951	FLUORIDE, TOTAL (MG/L AS F)	02/27/89-06/19/90	16 ##	0.05	0.075	0.12	0.05	0.001	0.03	0.05	0.05	0.1	0.12

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00955	SILICA, DISSOLVED (MG/L AS SI02)	05/23/89-06/19/90	13	10.4	10.192	13.2	5.2	4.119	2.03	6.64	9.15	11.3	13.08
01002	ARSENIC, TOTAL (UG/L AS AS)	11/24/75-03/13/85	8##	1.	0.938	1.5	0.5	0.103	0.32	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/30/80-05/19/81	2##	1.075	1.075	1.6	0.55	0.551	0.742	**	**	**	**
01027	CADMUM, TOTAL (UG/L AS CD)	11/24/75-03/13/85	8##	5.	3.875	5.	0.5	4.339	2.083	**	**	**	**
01028	CADMUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/30/80-05/19/81	2##	0.068	0.068	0.08	0.055	0.	0.018	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/30/80-05/19/81	2	2.095	2.095	2.3	1.89	0.084	0.29	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/14/73-03/13/85	13##	5.	6.962	20.	0.5	22.519	4.745	2.3	5.	10.	16.
01042	COPPER, TOTAL (UG/L AS CU)	05/14/73-03/13/85	13##	5.	5.385	10.	5.	1.923	1.387	5.	5.	5.	8.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/30/80-05/19/81	2	0.65	0.65	0.97	0.33	0.205	0.453	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/24/79-05/24/79	1	2400.	2400.	2400.	2400.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	12/07/73-03/13/85	11	7.	35.955	312.	1.	8460.023	91.978	1.1	2.	15.	256.
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/30/80-05/19/81	2##	2.675	2.675	4.8	0.55	9.031	3.005	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	05/24/79-05/24/79	1	70.	70.	70.	70.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/14/73-05/24/79	10##	50.	45.5	50.	5.	202.5	14.23	9.5	50.	50.	50.
01067	NICKEL, TOTAL (UG/L AS NI)	05/04/82-03/13/85	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/30/80-05/19/81	2##	2.065	2.065	3.33	0.8	3.2	1.789	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/14/73-03/13/85	12##	12.5	16.667	50.	5.	210.606	14.512	5.	5.	27.5	44.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/30/80-05/19/81	2	4.48	4.48	4.66	4.3	0.065	0.255	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	180##	50.	184.406	8000.	0.	406806.566	637.814	50.	50.	100.	390.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	180##	1.699	1.92	3.903	0.	0.171	0.414	1.699	1.699	2.	2.59
	GEOMETRIC MEAN =			83.233									
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34671	PCB - 1016 TOTWUG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/13/85-03/13/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451	DICHLORPROP WATER,SUSPUG/L	03/13/85-03/13/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745	2,4-DB WATER, TOTUG/L	03/13/85-03/13/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/17/79-03/13/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39305	O,P'DDT IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39310	P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/04/82-05/04/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/17/79-03/13/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480	METHOXYPHOR IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/13/85-03/13/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/04/82-05/04/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/17/79-05/19/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/13/85-03/13/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	64	0.3	0.434	1.7	0.05	0.127	0.357	0.1	0.2	0.575	0.95
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	64	0.255	0.359	1.449	0.01	0.096	0.309	0.09	0.125	0.5	0.9
71900	MERCURY, TOTAL (UG/L AS HG)	05/14/73-03/13/85	13 ##	0.25	0.219	0.25	0.15	0.002	0.048	0.15	0.15	0.25	0.25
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/30/80-05/19/81	2 ##	0.03	0.03	0.05	0.01	0.001	0.028	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/13/85-03/13/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0005

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Exceed	Obs	Exceed	Obs	Exceed	Obs	Exceed		
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	18	1	0.06	3	0	0.00	7	1	0.14	8	0	0.00
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	184	1	0.01	45	1	0.02	79	0	0.00	60	0	0.00
00400	PH	Fresh Chronic	9.	182	0	0.00	45	0	0.00	77	0	0.00	60	0	0.00
00403	PH, LAB	Fresh-Lo Lim.	6.5	182	91	0.50	45	24	0.53	77	35	0.45	60	32	0.53
		Fresh Chronic	9.	21	0	0.00	3	0	0.00	10	0	0.00	8	0	0.00
		Other-Lo Lim.	6.5	21	17	0.81	3	2	0.67	10	10	1.00	8	5	0.63
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	182	0	0.00	44	0	0.00	78	0	0.00	60	0	0.00
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	169	0	0.00	41	0	0.00	74	0	0.00	54	0	0.00
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	13	0	0.00	3	0	0.00	4	0	0.00	6	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	18	0	0.00	2	0	0.00	8	0	0.00	8	0	0.00
		Drinking Water	250.	18	0	0.00	2	0	0.00	8	0	0.00	8	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	16	0	0.00	2	0	0.00	6	0	0.00	8	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	16	0	0.00	2	0	0.00	6	0	0.00	8	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	8	0	0.00				3	0	0.00	5	0	0.00
		Drinking Water	50.	8	0	0.00				3	0	0.00	5	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2 &	0	0.00				1	0	0.00	1	0	0.00
		Drinking Water	5.	2 &	0	0.00				1	0	0.00	1	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	13	0	0.00				5	0	0.00	8	0	0.00
01042	COPPER, TOTAL	Fresh Acute	18.	13	0	0.00				5	0	0.00	8	0	0.00
		Drinking Water	1300.	13	0	0.00				5	0	0.00	8	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	11	1	0.09				5	0	0.00	6	1	0.17
		Drinking Water	15.	11	3	0.27				5	1	0.20	6	2	0.33
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	10	0	0.00				3	0	0.00	7	0	0.00
		Drinking Water	100.	10	0	0.00				3	0	0.00	7	0	0.00
01067	NICKEL, TOTAL	Fresh Acute	1400.	2	0	0.00				1	0	0.00	1	0	0.00
		Drinking Water	100.	2	0	0.00				1	0	0.00	1	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	12	0	0.00				5	0	0.00	7	0	0.00
		Drinking Water	5000.	12	0	0.00				5	0	0.00	7	0	0.00
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	180	34	0.19	44	6	0.14	77	10	0.13	59	18	0.31
34356	ENDOSULFAN, BETA, TOTAL	Fresh Acute	0.22	1	0	0.00				1	0	0.00			
34361	ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1	0	0.00				1	0	0.00			
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
		Drinking Water	1.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39300	P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39310	P,P'DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39320	P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39340	GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00				1	0	0.00			
		Drinking Water	0.2	1	0	0.00				1	0	0.00			
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
		Drinking Water	2.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39380	DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39390	ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39400	TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	1	0	0.00				1	0	0.00			
		Drinking Water	3.	1	0	0.00				1	0	0.00			
39410	HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00				1	0	0.00	1	0	0.00
		Drinking Water	0.4	1	0	0.00				1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0005

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00				1	0	0.00						
		Drinking Water	0.2	1	0	0.00				1	0	0.00						
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
		Fresh Acute	6.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Drinking Water	1.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
		Fresh Acute	6.	3	0	0.00												
39730	2,4-D IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00				1	0	0.00						
		Fresh Acute	2.4	13	0	0.00							5	0	0.00	8	0	0.00
39760	SILVEX IN WHOLE WATER SAMPLE	Drinking Water	50.	1	0	0.00							1	0	0.00			
		Fresh Acute	2.4	13	0	0.00							5	0	0.00	8	0	0.00
71900	MERCURY, TOTAL	Drinking Water	2.	13	0	0.00												
		Fresh Acute	2.4	13	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1973 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	8	18.35	18.7	26.7	5.6	41.26	6.423	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	8	7.5	7.913	11.	6.1	2.747	1.657	**	**	**	**
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	8	6.5	6.538	6.8	6.3	0.023	0.151	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	8	6.5	6.516	6.8	6.3	0.023	0.152	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	8	0.316	0.305	0.501	0.158	0.01	0.101	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.1	0.188	0.5	0.05	0.029	0.171	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.01	0.029	0.12	0.005	0.002	0.041	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.465	0.517	1.139	0.06	0.098	0.313	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	8	0.95	1.1	1.699	0.7	0.125	0.354	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	8##	75.	112.5	200.	50.	5535.714	74.402	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	8##	1.849	1.962	2.301	1.699	0.089	0.298	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	91.7								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	13	17.2	15.9	25.6	5.	56.995	7.55	5.24	9.15	23.3	25.12
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	13	9.6	9.408	14.4	6.	6.414	2.533	6.	7.	11.	13.68
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	13	6.5	6.608	7.2	6.	0.092	0.304	6.2	6.5	6.8	7.12
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	13	6.5	6.514	7.2	6.	0.102	0.319	6.2	6.5	6.8	7.12
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	13	0.316	0.306	1.	0.063	0.053	0.23	0.078	0.176	0.316	0.726
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	13	0.2	0.265	0.6	0.05	0.029	0.17	0.07	0.1	0.4	0.56
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	13##	0.005	0.017	0.12	0.005	0.001	0.032	0.005	0.005	0.015	0.084
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	13	0.49	0.591	1.299	0.31	0.066	0.257	0.346	0.405	0.69	1.099
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	13	0.7	0.746	1.399	0.5	0.051	0.226	0.54	0.6	0.8	1.199
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	13##	50.	76.923	300.	50.	4839.744	69.568	50.	50.	75.	220.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	13##	1.699	1.805	2.477	1.699	0.053	0.231	1.699	1.699	1.849	2.286
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	63.847								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	9	18.3	15.867	25.6	4.4	68.735	8.291	4.4	6.95	24.2	25.6
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	10	8.45	9.15	12.4	6.2	4.041	2.01	6.31	7.825	11.125	12.31
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	9	6.5	6.433	7.5	5.	0.407	0.638	5.	6.4	6.55	7.5
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	9	6.5	5.862	7.5	5.	0.775	0.88	5.	6.4	6.55	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	9	0.316	1.374	10.	0.032	10.478	3.237	0.032	0.284	0.409	10.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	10	0.4	0.455	1.399	0.05	0.149	0.386	0.055	0.175	0.55	1.329
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	10	0.01	0.016	0.06	0.005	0.	0.016	0.005	0.009	0.02	0.056
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	10	0.41	0.382	0.59	0.11	0.023	0.153	0.122	0.26	0.502	0.585
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	10	0.6	0.71	1.399	0.3	0.132	0.363	0.3	0.375	1.025	1.369
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	11##	50.	236.364	1200.	50.	136545.455	369.521	50.	50.	400.	1080.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	11##	1.699	2.005	3.079	1.699	0.286	0.535	1.699	1.699	2.602	3.019
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	101.077								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	12	13.35	14.133	27.2	2.2	79.344	8.908	2.86	5.25	22.475	27.05
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	12	9.2	8.958	12.6	5.2	7.646	2.765	5.32	6.1	11.65	12.6
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	10	7.	6.91	7.3	6.5	0.065	0.256	6.51	6.675	7.05	7.29
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	10	7.	6.842	7.3	6.5	0.071	0.266	6.51	6.675	7.05	7.29
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	10	0.1	0.144	0.316	0.05	0.008	0.087	0.051	0.091	0.212	0.31
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	12	0.4	0.446	0.8	0.05	0.068	0.261	0.065	0.225	0.7	0.8
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12	0.025	0.05	0.18	0.005	0.003	0.057	0.005	0.013	0.065	0.171
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12	0.635	0.689	1.419	0.025	0.173	0.416	0.066	0.483	1.062	1.368
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	11	0.9	0.954	1.399	0.6	0.076	0.277	0.62	0.7	1.299	1.379
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	50.	116.667	500.	50.	19696.97	140.346	50.	50.	100.	440.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	1.699	1.897	2.699	1.699	0.12	0.346	1.699	1.699	2.	2.632
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	78.944								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	8	2.45	6.888	22.	0.6	82.361	9.075	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	8	8.6	8.913	13.	5.9	7.101	2.665	**	**	**	**
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	8	6.9	6.75	7.3	6.	0.177	0.421	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	8	6.889	6.556	7.3	6.	0.22	0.469	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	8	0.129	0.278	1.	0.05	0.1	0.316	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.4	0.5	1.199	0.1	0.163	0.403	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.035	0.049	0.14	0.005	0.002	0.049	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	5	0.59	0.578	1.	0.18	0.088	0.297	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	8	0.75	0.912	1.599	0.3	0.246	0.496	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	9 ##	50.	72.222	200.	50.	2569.444	50.69	50.	50.	75.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	9 ##	1.699	1.799	2.301	1.699	0.045	0.213	1.699	1.699	1.849	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	62.996								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	8	17.5	17.375	26.5	7.	59.268	7.699	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	8	9.25	9.275	12.8	6.6	3.579	1.892	**	**	**	**
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	8	7.	7.063	7.5	6.6	0.068	0.262	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	8	7.	6.993	7.5	6.6	0.074	0.272	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	8	0.1	0.102	0.251	0.032	0.004	0.066	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.1	0.125	0.3	0.05	0.007	0.085	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	7	0.02	0.03	0.12	0.01	0.002	0.04	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	2	0.365	0.365	0.42	0.31	0.006	0.078	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	8	0.65	0.663	1.	0.4	0.046	0.213	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	7 ##	50.	107.143	400.	50.	17023.81	130.475	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	7 ##	1.699	1.871	2.602	1.699	0.117	0.341	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	74.3								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	7	19.	17.357	22.	12.5	13.06	3.614	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	3	69.	66.667	71.	60.	34.333	5.859	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	7	8.	8.271	10.5	6.2	2.682	1.638	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	3	2.	1.667	2.	1.	0.333	0.577	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	3	16.	16.667	20.	14.	9.333	3.055	**	**	**	**
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	7	6.6	6.586	7.	6.	0.131	0.363	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	7	6.6	6.453	7.	6.	0.152	0.39	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	7	0.251	0.353	1.	0.1	0.101	0.317	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	3	13.	15.	27.	5.	124.	11.136	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	3	5.	6.167	11.	2.5	19.083	4.368	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	3	2.5	8.833	22.	2.	130.083	11.405	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.2	0.219	0.4	0.05	0.013	0.113	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	8	0.02	0.03	0.09	0.01	0.001	0.026	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	3	0.5	0.433	0.5	0.3	0.013	0.115	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	8	0.55	0.612	0.9	0.4	0.041	0.203	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	3	0.2	0.2	0.3	0.1	0.01	0.1	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	3	0.16	0.2	0.3	0.14	0.008	0.087	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	3	9.	9.333	11.	8.	2.333	1.528	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	8 ##	50.	106.25	500.	50.	25312.5	159.099	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	8 ##	1.699	1.824	2.699	1.699	0.125	0.354	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	66.676								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1980 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	10	13.	14.85	25.	6.5	54.947	7.413	6.6	7.875	23.25	24.9
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	10	73.5	77.6	126.	43.	454.711	21.324	45.4	67.	88.25	122.3
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	10	8.15	8.03	11.4	5.3	3.538	1.881	5.34	6.45	9.3	11.22
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	10	2.	2.7	10.	1.	7.122	2.669	1.	1.	3.	9.3
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	10	15.5	16.2	27.	7.	46.178	6.795	7.3	10.	21.25	26.8
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	10	6.4	6.5	7.3	5.9	0.16	0.4	5.94	6.3	6.775	7.27
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	10	6.4	6.366	7.3	5.9	0.18	0.424	5.94	6.3	6.775	7.27
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	10	0.398	0.431	1.259	0.05	0.112	0.335	0.055	0.175	0.501	1.183
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	8.5	14.3	64.	2.5	339.733	18.432	2.5	4.375	14.	59.9
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	4.5	5.8	22.	0.	36.789	6.065	0.25	2.5	6.25	20.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	4.5	9.	42.	2.	153.722	12.398	2.05	2.5	9.5	39.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	10 ##	0.05	0.075	0.3	0.05	0.006	0.079	0.05	0.05	0.05	0.275
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	10 ##	0.005	0.007	0.02	0.005	0.	0.005	0.005	0.005	0.006	0.019
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	10	0.31	0.34	0.6	0.17	0.021	0.144	0.173	0.2	0.47	0.59
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	10	0.3	0.37	0.9	0.2	0.049	0.221	0.2	0.2	0.45	0.87
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	10	0.1	0.13	0.3	0.05	0.006	0.079	0.05	0.088	0.2	0.29
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	10	0.05	0.056	0.13	0.02	0.001	0.033	0.021	0.03	0.08	0.125
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	10	9.5	10.1	17.	7.	11.211	3.348	7.	7.	12.5	16.7
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10 ##	75.	935.	8000.	50.	6184472.222	2486.86	50.	50.	350.	7250.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10 ##	1.849	2.188	3.903	1.699	0.503	0.709	1.699	1.699	2.533	3.783
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	153.995								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	12	11.5	12.875	24.	2.	58.46	7.646	2.9	6.	21.5	23.55
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	12	84.	124.	536.	53.	17344.	131.697	55.4	71.5	118.75	413.
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	12	8.1	8.15	11.6	4.6	6.234	2.497	4.87	5.75	10.15	11.6
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	12	2.	1.917	4.	1.	0.992	0.996	1.	1.	2.75	3.7
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	12	15.5	14.667	24.	8.	20.788	4.559	8.3	10.5	16.	22.8
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	12	6.5	6.325	6.6	5.3	0.138	0.372	5.51	6.175	6.5	6.6
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	12	6.5	6.093	6.6	5.3	0.197	0.444	5.51	6.175	6.5	6.6
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	12	0.316	0.807	5.012	0.251	1.807	1.344	0.251	0.316	0.695	3.808
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	12 ##	3.75	7.333	31.	2.5	69.379	8.329	2.5	2.5	10.5	25.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	12 ##	2.5	3.167	7.	1.	3.47	1.863	1.	2.5	4.5	6.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	12 ##	2.75	5.417	24.	2.5	37.402	6.116	2.5	2.5	5.75	19.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.05	0.067	0.2	0.05	0.002	0.044	0.05	0.05	0.05	0.17
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.005	0.006	0.02	0.005	0.	0.004	0.005	0.005	0.005	0.016
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12	0.295	0.29	0.5	0.	0.022	0.148	0.045	0.175	0.41	0.497
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	12	0.35	0.4	1.	0.2	0.049	0.222	0.2	0.225	0.5	0.85
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	12	0.1	0.079	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	12	0.045	0.053	0.1	0.02	0.	0.022	0.026	0.04	0.068	0.094
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	12	7.	7.25	13.	2.	11.114	3.334	2.3	4.25	9.75	12.4
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	50.	220.833	1400.	50.	156117.424	395.117	50.	50.	312.5	1100.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	1.699	1.97	3.146	1.699	0.258	0.508	1.699	1.699	2.376	2.983
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	93.343								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	12	16.	14.208	23.5	4.	46.703	6.834	4.15	7.25	20.125	22.75
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	12	85.5	86.417	202.	1.	2058.629	45.372	19.	66.	95.75	173.5
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	12	7.8	7.783	9.5	5.8	1.614	1.271	5.92	6.45	9.1	9.38
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	12	1.	1.458	3.	0.5	0.521	0.722	0.65	1.	2.	2.7
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	12	17.5	17.667	31.	2.	59.515	7.715	4.1	13.	24.	29.2
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	12	6.4	6.35	6.8	6.	0.041	0.202	6.03	6.225	6.4	6.71
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	12	6.4	6.309	6.8	6.	0.043	0.207	6.03	6.225	6.4	6.71
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	12	0.398	0.491	1.	0.158	0.05	0.225	0.206	0.398	0.599	0.938
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	12	5.	7.292	22.	2.5	37.657	6.137	2.5	2.5	11.	19.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	12	3.75	4.375	8.	2.	4.869	2.207	2.15	2.5	6.75	7.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	12	2.5	3.958	17.	0.	19.839	4.454	0.	2.5	4.75	13.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.009
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12	0.215	0.231	0.47	0.11	0.009	0.096	0.113	0.163	0.283	0.419
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	12	0.35	0.35	0.6	0.1	0.021	0.145	0.13	0.225	0.475	0.57
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	12	0.1	0.121	0.2	0.05	0.004	0.066	0.05	0.05	0.2	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	12	0.06	0.061	0.15	0.02	0.001	0.037	0.02	0.033	0.085	0.132
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	12	7.	6.75	9.	5.	2.386	1.545	5.	5.	8.	9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12	100.	91.667	300.	0.	5378.788	73.34	15.	50.	100.	240
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12	2.	1.773	2.477	0.	0.361	0.601	0.51	1.699	2.	2.334
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	59.258								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	11	11.5	12.545	25.	3.	49.223	7.016	3.2	7.	18.	24.3
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	10	80.	84.	176.	53.	1107.6	33.281	53.2	65.	86.	160.
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	11	10.6	9.991	13.4	6.1	4.367	2.09	6.38	8.4	11.2	13.12
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	10	1.	1.4	2.	1.	0.267	0.516	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	11	12.	14.636	28.	7.	37.055	6.087	7.8	11.	19.	26.4
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	11	6.3	6.355	6.5	6.	0.027	0.163	6.04	6.3	6.5	6.5
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	11	6.3	6.324	6.5	6.	0.028	0.167	6.04	6.3	6.5	6.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	11	0.501	0.474	1.	0.316	0.043	0.207	0.316	0.316	0.501	0.926
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	7.	8.5	29.	2.5	57.556	7.587	2.5	4.375	8.5	27.1
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	4.	4.5	14.	2.	11.6	3.406	2.	2.5	5.	12.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	3.	4.136	15.	1.	14.855	3.854	1.2	2.5	5.	13.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	11 ##	0.05	0.164	1.3	0.05	0.142	0.377	0.05	0.05	0.05	1.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	11 ##	0.005	0.009	0.05	0.005	0.	0.014	0.005	0.005	0.005	0.041
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	11	0.35	0.313	0.5	0.13	0.014	0.119	0.142	0.2	0.41	0.488
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	11	0.3	0.532	1.6	0.05	0.293	0.541	0.06	0.1	1.2	1.52
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	11 ##	0.05	0.059	0.1	0.05	0.	0.02	0.05	0.05	0.05	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	11	0.02	0.028	0.09	0.01	0.001	0.024	0.01	0.01	0.03	0.082
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	11	6.	6.455	13.	2.	12.273	3.503	2.2	3.	9.	12.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10 ##	75.	135.	700.	50.	40027.778	200.069	50.	50.	100.	640.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10 ##	1.849	1.934	2.845	1.699	0.125	0.353	1.699	1.699	2.	2.761
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		85.9							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	10	16.	13.75	22.	4.	52.792	7.266	4.	5.875	21.25	22.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	10	62.5	64.4	83.	52.	112.933	10.627	52.2	55.5	73.5	82.5
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	10	9.55	9.81	14.	6.2	6.743	2.597	6.29	7.1	12.05	13.85
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	10	1.5	1.55	3.	0.5	0.581	0.762	0.55	1.	2.	2.9
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	10	10.5	13.3	21.	8.	30.233	5.498	8.	8.75	20.	20.9
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	10	6.05	5.92	6.36	5.38	0.133	0.365	5.392	5.5	6.215	6.35
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	10	6.047	5.782	6.36	5.38	0.154	0.393	5.392	5.5	6.215	6.35
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	10	0.897	1.653	4.169	0.437	1.884	1.372	0.448	0.611	3.162	4.068
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	5.5	8.7	36.	2.5	107.011	10.345	2.5	2.5	9.75	33.9
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	2.75	3.4	7.	1.	3.267	1.807	1.15	2.5	4.5	6.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	2.75	6.3	29.	2.	72.344	8.506	2.05	2.5	6.	27.3
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	10 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	10 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	10	0.245	0.255	0.46	0.1	0.012	0.108	0.104	0.17	0.34	0.451
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	10	0.35	0.33	0.5	0.1	0.013	0.116	0.11	0.275	0.4	0.49
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	10	0.1	0.103	0.2	0.05	0.003	0.059	0.05	0.05	0.148	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	10	0.05	0.05	0.13	0.01	0.001	0.037	0.01	0.018	0.07	0.124
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	10	6.5	6.9	12.	4.	6.989	2.644	4.1	5.	8.	11.9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10 ##	75.	95.	200.	50.	3583.333	59.861	50.	50.	125.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10 ##	1.849	1.91	2.301	1.699	0.061	0.248	1.699	1.699	2.075	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		81.225							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	10	9.	12.13	22.5	0.7	75.965	8.716	0.78	4.5	21.825	22.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	10	78.	85.6	163.	48.	998.044	31.592	49.8	67.5	98.75	157.4
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	10	11.1	10.25	13.2	5.7	7.165	2.677	5.88	7.575	12.9	13.2
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	10	1.	1.1	2.	0.5	0.267	0.516	0.5	0.875	1.25	2.
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	10	15.	16.9	50.	7.	154.989	12.449	7.1	8.	19.	46.9
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	10	6.4	6.38	7.1	5.4	0.262	0.512	5.46	6.	6.775	7.09
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	10	6.389	6.094	7.1	5.4	0.353	0.594	5.46	6.	6.775	7.09
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	10	0.409	0.806	3.981	0.079	1.358	1.165	0.081	0.175	1.	3.683
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	6.	9.25	44.	2.5	154.458	12.428	2.5	2.5	8.25	40.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	3.5	4.45	14.	2.5	11.969	3.46	2.5	2.5	4.25	13.1
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	10	2.75	5.55	30.	1.	75.858	8.71	1.	2.125	4.5	27.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	9 ##	0.05	0.056	0.1	0.05	0.	0.017	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	9 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	9	0.31	0.353	0.54	0.21	0.016	0.127	0.21	0.25	0.495	0.54
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	7	0.3	0.329	0.5	0.1	0.022	0.15	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	7 ##	0.05	0.071	0.1	0.05	0.001	0.027	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	9	0.04	0.041	0.08	0.02	0.	0.02	0.02	0.025	0.055	0.08
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	10	4.5	5.	9.	2.	5.333	2.309	2.1	3.	7.25	8.9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10	100.	220.	600.	50.	49555.556	222.611	50.	50.	500.	590.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	10	2.	2.127	2.778	1.699	0.208	0.456	1.699	1.699	2.699	2.77
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	134.06								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	12	11.6	12.808	25.	0.5	66.804	8.173	1.1	6.25	20.75	24.7
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	12	74.5	82.417	145.	55.	529.174	23.004	58.6	70.25	89.75	131.5
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	12	9.9	9.667	13.6	5.9	6.013	2.452	6.05	7.325	11.55	13.36
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	12	1.	1.125	2.	0.5	0.188	0.433	0.65	1.	1.	2.
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	12	14.5	12.792	24.	0.5	61.248	7.826	1.25	4.25	18.	23.4
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	12	6.9	6.927	8.51	5.4	0.779	0.882	5.58	6.3	7.64	8.282
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	12	6.855	6.253	8.51	5.4	1.274	1.129	5.58	6.3	7.64	8.282
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	12	0.139	0.559	3.981	0.003	1.251	1.119	0.007	0.023	0.501	3.087
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	12 ##	2.5	4.542	17.	2.5	19.521	4.418	2.5	2.5	5.125	14.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	12 ##	2.5	3.125	6.	2.5	1.46	1.208	2.5	2.5	3.625	5.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	12 ##	2.5	3.292	12.	0.	8.657	2.942	0.75	2.5	2.5	9.9
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.05	0.058	0.1	0.05	0.	0.019	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12	0.305	0.316	0.57	0.09	0.025	0.158	0.102	0.163	0.468	0.549
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	12	0.3	0.371	0.7	0.05	0.032	0.179	0.095	0.3	0.5	0.67
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	12	0.1	0.108	0.3	0.05	0.005	0.073	0.05	0.05	0.1	0.27
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	12	0.035	0.038	0.06	0.02	0.	0.013	0.02	0.03	0.05	0.057
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	12	6.	6.	9.	3.	3.273	1.809	3.3	5.	7.	9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	50.	270.25	2400.	43.	451857.114	672.203	45.1	50.	100.	1740
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	1.699	1.959	3.38	1.633	1.633	0.491	1.653	1.699	2.	3.056
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	91.001								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	13	14.	14.431	25.	4.	76.406	8.741	4.	4.75	22.65	25.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	12	72.5	75.75	95.	59.	168.932	12.997	59.6	64.	90.25	94.7
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	12	9.75	9.592	12.5	4.6	6.421	2.534	5.35	7.55	11.9	12.47
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	12	1.	1.5	3.	1.	0.455	0.674	1.	1.	2.	2.7
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	12	12.5	12.75	17.	9.	5.841	2.417	9.3	11.	14.75	16.7
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	13	7.41	7.436	8.49	5.99	0.637	0.798	5.99	7.18	8.13	8.482
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	13	7.41	6.733	8.49	5.99	1.174	1.083	5.99	7.18	8.13	8.482
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	13	0.039	0.185	1.023	0.003	0.139	0.373	0.003	0.008	0.066	1.023
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	12	8.	7.667	18.	2.5	23.242	4.821	2.5	2.5	10.5	16.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	12	3.25	3.875	8.	0.	4.824	2.196	0.75	2.5	5.75	7.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	12	3.5	4.542	12.	2.5	7.975	2.824	2.5	2.5	5.75	10.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.05	0.052	0.1	0.025	0.	0.017	0.033	0.05	0.05	0.085
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	12	0.215	0.218	0.36	0.05	0.009	0.093	0.065	0.158	0.305	0.351
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	12	0.4	0.4	0.7	0.1	0.022	0.148	0.16	0.3	0.5	0.64
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	12 ##	0.075	0.083	0.2	0.05	0.002	0.044	0.05	0.05	0.1	0.17
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	12	0.035	0.037	0.05	0.01	0.	0.012	0.016	0.03	0.05	0.05
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	8	6.	6.25	9.	4.	2.786	1.669	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	50.	75.	200.	50.	2045.455	45.227	50.	50.	100.	170.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	12 ##	1.699	1.824	2.301	1.699	0.041	0.201	1.699	1.699	2.	2.211
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	66.742								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	13	12.6	13.262	25.	2.	53.644	7.324	3.28	7.	21.	24.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	11	86.	96.727	203.	54.	1433.018	37.855	59.	79.	97.	184.
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	13	10.1	9.654	12.8	6.7	4.769	2.184	6.74	7.1	11.65	12.56
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	11	1.	1.227	3.	0.5	0.468	0.684	0.6	1.	1.	2.8
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	11	12.	12.455	20.	7.	14.273	3.778	7.2	10.	16.	19.2
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	13	7.5	7.535	8.7	6.69	0.395	0.629	6.714	6.975	8.14	8.508
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	13	7.5	7.209	8.7	6.69	0.511	0.715	6.714	6.975	8.14	8.508
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	13	0.032	0.062	0.204	0.002	0.005	0.068	0.004	0.007	0.107	0.194
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	5.	5.727	14.	2.5	10.768	3.281	2.5	3.	7.	12.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	2.5	2.818	6.	0.	3.314	1.82	0.2	1.	4.	5.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	2.5	3.273	10.	0.	10.918	3.304	0.1	0.5	6.	9.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	11	0.06	0.063	0.11	0.02	0.001	0.027	0.024	0.04	0.08	0.108
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	11	0.01	0.02	0.07	0.005	0.001	0.023	0.005	0.01	0.02	0.068
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	11	0.34	0.334	0.65	0.05	0.026	0.161	0.076	0.22	0.46	0.612
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	11	0.4	0.436	0.7	0.3	0.019	0.136	0.3	0.3	0.5	0.68
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	11	0.1	0.091	0.2	0.005	0.004	0.062	0.014	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	11	0.05	0.048	0.11	0.02	0.001	0.026	0.02	0.03	0.06	0.1
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	8	4.75	4.613	6.	2.1	1.644	1.282	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	11 ##	50.	59.091	100.	50.	409.091	20.226	50.	50.	50.	100.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	11 ##	1.699	1.754	2.	1.699	0.015	0.122	1.699	1.699	1.699	2.
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	56.716								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	12	17.1	16.425	28.2	2.5	51.266	7.16	4.39	10.85	22.325	26.73
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	7	80.	93.143	174.	67.	1319.476	36.325	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	12	8.9	9.292	14.5	1.6	10.594	3.255	3.25	8.35	11.85	13.99
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	11	2.	2.455	5.	1.	1.873	1.368	1.	1.	4.	4.8
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	11	19.	21.364	34.	11.	67.255	8.201	11.4	13.	31.	33.8
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	12	7.285	7.368	7.91	6.87	0.153	0.392	6.897	7.	7.83	7.889
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	12	7.27	7.228	7.91	6.87	0.175	0.418	6.897	7.	7.83	7.889
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	12	0.054	0.059	0.135	0.012	0.002	0.043	0.013	0.015	0.1	0.127
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	8.	19.773	142.	0.5	1655.868	40.692	1.4	5.	12.	116.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	2.	3.636	16.	0.5	19.005	4.359	0.5	1.	4.	13.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	11	7.	16.227	126.	0.5	1335.568	36.545	0.6	2.	9.	102.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	11	0.04	0.067	0.23	0.02	0.004	0.063	0.02	0.02	0.1	0.204
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	11	0.01	0.014	0.06	0.005	0.	0.016	0.005	0.005	0.01	0.052
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	11	0.21	0.234	0.41	0.05	0.011	0.104	0.07	0.16	0.32	0.396
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	11	0.4	0.509	1.	0.2	0.055	0.234	0.22	0.4	0.7	0.96
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	11 ##	0.05	0.109	0.5	0.05	0.017	0.132	0.05	0.05	0.1	0.42
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	11	0.04	0.062	0.3	0.02	0.006	0.08	0.02	0.03	0.06	0.252
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	11	6.8	7.191	10.7	3.3	6.193	2.489	3.5	5.1	9.7	10.54
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	9 ##	50.	166.667	800.	50.	63125.	251.247	50.	50.	200.	800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	9 ##	1.699	1.953	2.903	1.699	0.196	0.443	1.699	1.699	2.239	2.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	89.675								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1990 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	4	19.1	18.375	27.	8.3	68.109	8.253	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	4	9.	8.95	10.3	7.5	1.737	1.318	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	6	1.	1.833	4.	1.	1.767	1.329	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	5	17.	16.4	19.	11.	10.8	3.286	**	**	**	**
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	4	7.005	6.893	7.26	6.3	0.176	0.42	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	4	6.995	6.722	7.26	6.3	0.215	0.464	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	4	0.101	0.19	0.501	0.055	0.044	0.21	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	6	7.	7.333	13.	2.	13.467	3.67	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	6	2.5	2.667	5.	1.	2.667	1.633	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	6	4.5	4.667	9.	1.	7.467	2.733	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	6	0.045	0.057	0.1	0.02	0.001	0.031	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	6	0.01	0.008	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	6	0.34	0.337	0.45	0.25	0.004	0.066	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	6	0.45	0.45	0.6	0.3	0.011	0.105	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	6	0.1	0.092	0.1	0.05	0.	0.02	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	6	0.03	0.033	0.04	0.03	0.	0.005	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	5	4.9	5.1	6.6	4.3	0.775	0.88	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	4	200.	287.5	700.	50.	87291.667	295.452	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	4	2.239	2.255	2.845	1.699	0.257	0.507	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	180.01								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	44	22.5	21.866	28.2	2.7	16.797	4.098	17.6	20.	24.875	25.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	27	70.	69.778	97.	48.	215.333	14.674	53.	56.	79.	96.
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	45	7.	7.051	14.4	1.6	3.549	1.884	5.42	5.95	7.8	9.24
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	29	1.	1.638	10.	0.5	2.837	1.684	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	29	16.	16.034	34.	4.	32.606	5.71	11.	12.	18.	25.
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	45	6.5	6.728	7.69	6.	0.196	0.443	6.284	6.4	7.035	7.484
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	45	6.5	6.55	7.69	6.	0.228	0.478	6.284	6.4	7.035	7.484
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	45	0.316	0.282	1.	0.02	0.054	0.231	0.033	0.092	0.398	0.521
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	29	6.	9.017	36.	2.5	65.866	8.116	2.5	5.	9.5	27.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	29	4.	4.121	14.	0.	6.994	2.645	2.	2.5	5.5	7.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	29	3.	5.328	29.	0.	41.201	6.419	0.5	2.5	5.5	15.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	44 ##	0.05	0.14	0.7	0.02	0.03	0.174	0.05	0.05	0.2	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	44 ##	0.005	0.028	0.18	0.005	0.002	0.044	0.005	0.005	0.02	0.12
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	41	0.3	0.381	1.419	0.06	0.09	0.299	0.108	0.2	0.48	0.674
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	44	0.5	0.591	1.699	0.2	0.127	0.356	0.3	0.325	0.7	1.25
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	28	0.1	0.112	0.3	0.005	0.004	0.061	0.05	0.1	0.123	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	28	0.05	0.066	0.3	0.02	0.003	0.053	0.03	0.04	0.068	0.132
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	28	7.	7.246	14.	4.	6.204	2.491	4.54	5.15	8.	12.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	44 ##	50.	101.136	600.	50.	10521.934	102.576	50.	50.	100.	250.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	44 ##	1.699	1.893	2.778	1.699	0.075	0.274	1.699	1.699	2.	2.389
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	78.138								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	16	0.6	0.65	1.4	0.1	0.128	0.358	0.17	0.325	0.975	1.12
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	16	0.45	0.533	1.	0.05	0.114	0.337	0.092	0.255	0.9	1.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	79	7.	7.624	18.9	0.5	18.954	4.354	2.	4.4	10.1	14.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	49	86.	95.571	203.	56.	1210.167	34.787	68.	74.5	98.5	163.
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	79	10.8	10.659	14.5	5.7	3.548	1.884	8.4	9.3	12.2	12.8
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	52	1.	1.596	4.	0.5	0.775	0.88	1.	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	52	12.	13.279	31.	0.5	35.161	5.93	7.3	9.	18.	20.7
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	77	6.6	6.758	8.7	5.3	0.521	0.722	6.	6.3	7.2	7.84
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	77	6.6	6.29	8.7	5.3	0.743	0.862	6.	6.3	7.2	7.84
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	77	0.251	0.513	5.012	0.002	0.901	0.949	0.014	0.063	0.501	1.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	52 ##	2.5	8.067	142.	0.5	382.834	19.566	2.5	2.5	6.75	13.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	53 ##	2.5	3.255	16.	0.	6.458	2.541	1.	2.5	3.5	6.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	53 ##	2.5	5.962	126.	0.5	293.624	17.135	1.	2.5	4.	8.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	79 ##	0.05	0.194	1.399	0.02	0.073	0.269	0.05	0.05	0.23	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	78 ##	0.005	0.01	0.07	0.005	0.	0.012	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	74	0.395	0.406	1.299	0.05	0.054	0.232	0.15	0.21	0.5	0.675
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	79	0.4	0.504	1.599	0.05	0.118	0.343	0.2	0.3	0.7	0.9
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	53 ##	0.05	0.09	0.5	0.05	0.005	0.073	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	53	0.03	0.044	0.3	0.01	0.002	0.047	0.02	0.02	0.05	0.086
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	46	5.	5.4	10.7	2.	4.882	2.21	3.	3.875	7.	9.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	77 ##	50.	111.597	1200.	43.	31584.112	177.719	50.	50.	100.	220.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	77 ##	1.699	1.858	3.079	1.633	0.102	0.319	1.699	1.699	2.	2.336
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	72.058								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	26	0.25	0.352	1.7	0.05	0.124	0.353	0.05	0.175	0.4	0.9
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	26	0.2	0.298	1.449	0.01	0.09	0.3	0.057	0.14	0.353	0.655

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-06/19/90	61	18.5	17.615	27.2	2.2	33.083	5.752	9.	13.25	22.3	24.32
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/14/79-10/19/89	34	73.5	87.412	536.	1.	6671.159	81.677	53.	66.75	85.	96.5
00300	OXYGEN, DISSOLVED MG/L	04/19/73-06/19/90	60	8.4	8.575	12.2	4.6	3.039	1.743	6.22	7.2	10.025	11.34
00310	BOD, 5 DAY, 20 DEG C MG/L	08/14/79-06/19/90	38	1.	1.724	5.	0.5	1.091	1.044	1.	1.	2.	3.1
00340	COD, .25N K2CR2O7 MG/L	08/14/79-06/19/90	38	17.	17.579	50.	2.	71.061	8.43	8.8	11.75	20.	28.3
00400	PH (STANDARD UNITS)	04/19/73-06/19/90	60	6.5	6.708	8.49	5.	0.445	0.667	5.991	6.4	7.075	7.77
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-06/19/90	60	6.5	6.239	8.49	5.	0.669	0.818	5.991	6.4	7.075	7.77
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-06/19/90	60	0.316	0.577	10.	0.003	1.898	1.378	0.017	0.085	0.398	1.021
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/14/79-06/19/90	38	8.	11.	64.	2.5	138.5	11.769	2.5	5.75	12.	18.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/14/79-06/19/90	38	4.	4.579	22.	0.	14.791	3.846	1.	2.5	5.	8.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/14/79-06/19/90	38	5.	6.816	42.	0.	68.817	8.296	1.9	2.5	8.	13.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-06/19/90	60	0.05	0.136	1.3	0.02	0.041	0.202	0.041	0.05	0.1	0.39
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	60	0.01	0.017	0.14	0.005	0.001	0.024	0.005	0.005	0.02	0.049
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-06/19/90	54	0.3	0.309	0.68	0.	0.021	0.145	0.17	0.2	0.373	0.505
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-06/19/90	57	0.5	0.601	1.6	0.05	0.098	0.313	0.3	0.4	0.8	1.02
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/14/79-06/19/90	36	0.1	0.101	0.3	0.05	0.004	0.067	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/14/79-06/19/90	38	0.04	0.048	0.11	0.01	0.001	0.025	0.02	0.03	0.06	0.09
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/14/79-06/19/90	38	8.	7.874	17.	2.1	8.7	2.95	4.88	5.7	9.3	11.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	59 ##	50.	341.525	8000.	0.	1168892.461	1081.153	50.	50.	200.	600.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-06/19/90	59 ##	1.699	2.022	3.903	0.	0.323	0.569	1.699	1.699	2.301	2.778
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	105.312								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/19/73-06/22/79	22	0.3	0.373	1.3	0.05	0.094	0.307	0.065	0.2	0.5	0.87
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-06/22/79	22	0.205	0.304	1.	0.05	0.068	0.261	0.086	0.1	0.478	0.74

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0006

NPS Station ID: RICH0006  
 Location: AT RT. 1/301 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080207  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080207  
 RF3 Index: 02080207116900.70  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: ASHTON CREEK SECTION: 02B TOPO MAP #: 0133 TOPO MAP NAME: CHESTER, VA

LAT/LON: 37.321670/ -77.405837

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-ASH003.50 /VA2-02BX0029/VA2-4X0029  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.10

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 15.20  
 Distance from RF3: 0.00

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0006

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	51	14.4	14.837	28.	0.6	72.472	8.513	2.34	6.7	22.	26.24
00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	53	8.	8.111	13.2	1.6	8.157	2.856	4.02	6.45	10.3	11.8
00400	PH (STANDARD UNITS)	05/29/74-06/22/79	49	6.8	6.753	7.5	5.	0.149	0.386	6.5	6.5	7.	7.1
00400	CONVERTED PH (STANDARD UNITS)	05/29/74-06/22/79	49	6.8	6.399	7.5	5.	0.277	0.527	6.5	6.5	7.	7.1
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/29/74-06/22/79	49	0.158	0.399	10.	0.032	1.975	1.405	0.079	0.1	0.316	0.316
00403	PH, LAB, STANDARD UNITS SU	01/03/75-06/22/79	2	6.6	6.6	6.8	6.4	0.08	0.283	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	01/03/75-06/22/79	2	6.555	6.555	6.8	6.4	0.084	0.29	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/03/75-06/22/79	2	0.278	0.278	0.398	0.158	0.029	0.169	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	01/03/75-06/22/79	2	17.5	17.5	23.	12.	60.5	7.778	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/24/75-06/22/79	35	95.	122.914	906.	50.	19661.022	140.218	67.2	77.	114.	171.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/24/75-06/22/79	35	46.	47.229	96.	13.	504.593	22.463	21.6	29.	66.	84.6
00510	RESIDUE, TOTAL FIXED (MG/L)	11/24/75-06/22/79	35	47.	74.829	816.	10.	17377.146	131.822	20.6	38.	71.	108.4
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	06/27/76-08/29/77	2	76.	76.	148.	4.	10368.	101.823	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/24/75-06/22/79	34	8.5	9.676	26.	0.5	52.013	7.212	0.5	4.	14.25	21.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/24/75-06/22/79	35	3.	3.557	12.	0.	8.953	2.992	0.	0.5	5.	7.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	11/24/75-06/22/79	36	4.	6.528	26.	0.	38.113	6.174	0.5	2.	11.	15.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/29/74-06/22/79	51	0.6	0.909	4.099	0.05	0.631	0.794	0.2	0.4	1.099	2.079
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/29/74-06/22/79	51	0.01	0.026	0.16	0.005	0.001	0.03	0.005	0.005	0.04	0.07
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/29/74-05/26/78	37	0.27	0.266	0.64	0.025	0.021	0.146	0.08	0.125	0.365	0.48
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/29/74-06/22/79	51	1.299	1.86	7.399	0.2	2.828	1.682	0.5	0.8	2.199	4.939
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/22/77-06/22/79	14	0.215	0.242	0.6	0.025	0.024	0.156	0.063	0.118	0.36	0.515
01002	ARSENIC, TOTAL (UG/L AS AS)	11/24/75-05/24/79	7##	1.	1.071	1.5	1.	0.036	0.189	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	11/24/75-05/24/79	7##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/21/75-05/24/79	10##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01042	COPPER, TOTAL (UG/L AS CU)	03/21/75-05/24/79	10##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01045	IRON, TOTAL (UG/L AS FE)	11/02/78-05/24/79	2	2005.	2005	2410.	1600.	328050.	572.756	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/21/75-05/24/79	9	7.	10.167	39.	1.	149.5	12.227	1.	1.75	14.	39.
01055	MANGANESE, TOTAL (UG/L AS MN)	11/02/78-05/24/79	2	110.	110.	110.	110.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	03/21/75-05/24/79	10##	50.	41.	50.	5.	360.	18.974	5.	38.75	50.	50.
01092	ZINC, TOTAL (UG/L AS ZN)	03/21/75-05/24/79	10	20.	21.	50.	5.	265.556	16.296	5.	5.	32.5	49.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	52##	50.	113.462	800.	50.	21285.822	145.897	50.	50.	100.	300.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	52##	1.699	1.876	2.903	1.699	0.111	0.334	1.699	1.699	2.	2.477
				GEOMETRIC MEAN =		75.244							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	05/29/74-06/22/79	51	0.5	0.912	5.	0.05	1.372	1.172	0.1	0.2	0.9	3.18
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/29/74-06/22/79	51	0.38	0.787	5.	0.03	1.061	1.03	0.084	0.2	0.8	2.319
71900	MERCURY, TOTAL (UG/L AS HG)	03/21/75-05/24/79	10 ##	0.25	0.22	0.25	0.15	0.002	0.048	0.15	0.15	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0006

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	53	5	0.09	13	4	0.31	24	0	0.00	16	1	0.06			
00400	PH	Fresh Chronic	9.	49	0	0.00	12	0	0.00	21	0	0.00	16	0	0.00			
00403	PH, LAB	Other-Lo Lim.	6.5	49	20	0.41	12	4	0.33	21	5	0.24	16	11	0.69			
		Fresh Chronic	9.	2	0	0.00				1	0	0.00	1	0	0.00			
		Other-Lo Lim.	6.5	2	1	0.50				1	1	1.00	1	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	51	0	0.00	13	0	0.00	22	0	0.00	16	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	37	0	0.00	10	0	0.00	17	0	0.00	10	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	14	0	0.00	3	0	0.00	5	0	0.00	6	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	7	0	0.00				3	0	0.00	4	0	0.00			
		Drinking Water	50.	7	0	0.00				3	0	0.00	4	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	10	0	0.00				4	0	0.00	6	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	10	0	0.00				4	0	0.00	6	0	0.00			
01051	LEAD, TOTAL	Drinking Water	1300.	10	0	0.00				4	0	0.00	6	0	0.00			
		Fresh Acute	82.	9	0	0.00				4	0	0.00	5	0	0.00			
01065	NICKEL, DISSOLVED	Drinking Water	15.	9	2	0.22				4	1	0.25	5	1	0.20			
		Fresh Acute	1400.	10	0	0.00				4	0	0.00	6	0	0.00			
01092	ZINC, TOTAL	Drinking Water	100.	10	0	0.00				4	0	0.00	6	0	0.00			
		Fresh Acute	120.	10	0	0.00				4	0	0.00	6	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	52	9	0.17	13	2	0.15	23	2	0.09	16	5	0.31			
71900	MERCURY, TOTAL	Fresh Acute	2.4	10	0	0.00				4	0	0.00	6	0	0.00			
		Drinking Water	2.	10	0	0.00				4	0	0.00	6	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1974 - Station RICH0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	7	16.7	15.157	24.4	5.6	58.046	7.619	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	7	8.	7.857	11.7	3.	7.693	2.774	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	7##	50.	92.857	300.	50.	8690.476	93.223	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	7##	1.699	1.853	2.477	1.699	0.088	0.297	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	71.308								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	10	15.55	15.24	26.7	4.4	70.078	8.371	4.63	7.075	24.025	26.47
00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	11	8.4	8.9	12.	6.	5.146	2.268	6.08	6.5	11.	11.88
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	11##	50.	136.364	500.	50.	24545.455	156.67	50.	50.	300.	460.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	11##	1.699	1.931	2.699	1.699	0.162	0.402	1.699	1.699	2.477	2.655
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	85.381								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	12	16.35	15.283	26.7	3.3	74.476	8.63	3.99	6.15	23.45	26.7
00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	12	8.9	7.858	12.4	1.6	15.241	3.904	1.84	3.425	11.45	12.22
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	12##	50.	70.833	200.	50.	2026.515	45.017	50.	50.	87.5	170
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	12##	1.699	1.799	2.301	1.699	0.038	0.196	1.699	1.699	1.925	2.211
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	62.996								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	9	3.9	10.178	27.	0.6	113.814	10.668	0.6	1.5	22.	27.
00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	9	8.	8.222	13.2	3.9	9.592	3.097	3.9	5.5	10.75	13.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	9##	50.	88.889	400.	50.	13611.111	116.667	50.	50.	50.	400.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	9##	1.699	1.799	2.602	1.699	0.091	0.301	1.699	1.699	1.699	2.602
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	62.996								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	9	13.	16.244	28.	0.7	72.35	8.506	0.7	11.5	23.25	28.
00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	9	6.7	7.689	13.	5.5	5.966	2.443	5.5	6.05	9.25	13.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	9##	50.	205.556	800.	50.	66527.778	257.93	50.	50.	350.	800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	9##	1.699	2.053	2.903	1.699	0.229	0.479	1.699	1.699	2.54	2.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	112.983								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/74-06/22/79	4	20.25	19.25	22.5	14.	13.417	3.663	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/29/74-06/22/79	5	7.9	7.9	10.8	4.2	6.105	2.471	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	4 ##	50.	62.5	100.	50.	625.	25.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/29/74-06/22/79	4 ##	1.699	1.774	2.	1.699	0.023	0.151	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	59.46								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0007

NPS Station ID: RICH0007  
 Location: ASHTON CK, NEAR RT1/301 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080207  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080207  
 RF3 Index: 02080207116900.70  
 Description:  
 CHESAPEAKE BAY PROGRAM TISSUE AND SEDIMENT DATA ALL DATA FROM VIRGINIA STATE WATER CONTROL BOARD UNLESS OTHERWISE DESIGNATED  
 SPECIAL STUDY B79-014 DES 8-30-79/

LAT/LON: 37.321670/ -77.405837

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): XQL9344  
 Within Park Boundary: No

Date Created: 11/08/80

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.10

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 15.20  
 Distance from RF3: 0.00

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0007

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34686	HEPTACHLOR EPOXIDE WET WT/TISMG/KG	04/06/79-04/06/79	2	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
39515	PCBS (MG/KG) FISH TISSUE MG/KG	04/06/79-04/06/79	4	0.115	0.113	0.18	0.04	0.005	0.073	**	**	**	**
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/06/79-04/06/79	4	1.	1.	1.	1.	0.	0.	**	**	**	**
81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	04/06/79-04/06/79	4	0.05	0.05	0.06	0.04	0.	0.008	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0008

NPS Station ID: RICH0008  
 Location: RT. 724 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206004508.68  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: JOHNSON CREEK SECTION: 02B TOPO MAP #: 0138 TOPO MAP NAME: HOPEWELL, VA

LAT/LON: 37.328892/ -77.317782

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-JOD001.96 /VA2-02BX0159/VA2-4X0159  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 10.85

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.05

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0008

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/74-06/12/79	42	16.85	15.	27.5	1.	60.155	7.756	3.3	7.975	22.	23.79
00300 OXYGEN, DISSOLVED MG/L	09/10/74-06/12/79	42	8.4	7.66	14.6	1.2	12.242	3.499	2.36	4.4	10.4	11.74
00310 BOD, 5 DAY, 20 DEG C MG/L	10/16/74-10/16/74	1	22.	22.	22.	0.	0.	**	**	**	**	**
00400 PH (STANDARD UNITS)	09/10/74-06/12/79	40	6.5	6.347	7.5	4.5	0.439	0.663	5.51	6.125	6.675	7.
00400 CONVERTED PH (STANDARD UNITS)	09/10/74-06/12/79	40	6.5	5.547	7.5	4.5	1.096	1.047	5.51	6.125	6.675	7.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/10/74-06/12/79	40	0.316	2.839	31.623	0.032	69.268	8.323	0.1	0.212	0.753	3.097
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/10/74-06/12/79	41	0.3	1.118	8.	0.05	3.611	1.9	0.1	0.1	0.7	3.379
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	09/10/74-06/12/79	41 ##	0.005	0.009	0.04	0.005	0.	0.008	0.005	0.005	0.01	0.02
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	09/10/74-05/15/78	26	0.07	0.159	1.799	0.025	0.128	0.358	0.025	0.05	0.09	0.301
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/74-06/12/79	41	1.199	3.012	13.79	0.2	13.37	3.657	0.32	0.65	4.2	8.
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/01/77-06/12/79	15	0.08	0.071	0.13	0.025	0.001	0.038	0.025	0.025	0.1	0.124
01002 ARSENIC, TOTAL (UG/L AS AS)	11/25/75-05/15/78	4 ##	1.	1.125	1.5	1.	0.063	0.25	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	11/25/75-05/15/78	4 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	03/17/75-05/15/78	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	03/17/75-05/15/78	7 ##	5.	7.143	20.	5.	32.143	5.669	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	03/17/75-05/15/78	7	6.	10.614	32.	0.8	133.375	11.549	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	03/17/75-05/15/78	7 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	03/17/75-05/15/78	7	20.	32.857	90.	10.	823.81	28.702	**	**	**	**
31616 FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/10/74-06/12/79	39 ##	50.	424.359	6000.	50.	1070904.184	1034.845	50.	50.	300.	1300.
31616 LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/10/74-06/12/79	39 ##	1.699	2.1	3.778	1.699	0.337	0.581	1.699	1.699	2.477	3.114
31616 GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			125.856								
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	09/10/74-06/12/79	41	0.3	1.363	8.8	0.05	5.106	2.26	0.05	0.1	1.85	3.84
70507 PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	09/10/74-06/12/79	41	0.24	1.099	7.5	0.005	2.819	1.679	0.032	0.1	1.8	3.519
71900 MERCURY, TOTAL (UG/L AS HG)	03/17/75-05/15/78	7 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0008

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	42	8	0.19	10	5	0.50	17	1	0.06	15	2	0.13			
00400 PH	Fresh Chronic	9.	40	0	0.00	10	0	0.00	16	0	0.00	14	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Other-Lo Lim.	6.5	40	28	0.70	10	5	0.50	16	12	0.75	14	11	0.79			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	1.	41	0	0.00	10	0	0.00	16	0	0.00	15	0	0.00			
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	26	0	0.00	5	0	0.00	9	0	0.00	12	0	0.00			
01002 ARSENIC, TOTAL	Drinking Water	10.	15	0	0.00	5	0	0.00	7	0	0.00	3	0	0.00			
	Fresh Acute	360.	4	0	0.00				1	0	0.00	3	0	0.00			
	Drinking Water	50.	4	0	0.00				1	0	0.00	3	0	0.00			
01027 CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
	Drinking Water	5.	0 &	0	0.00												
01034 CHROMIUM, TOTAL	Drinking Water	100.	7	0	0.00				2	0	0.00	5	0	0.00			
01042 COPPER, TOTAL	Fresh Acute	18.	7	1	0.14				2	0	0.00	5	1	0.20			
01051 LEAD, TOTAL	Drinking Water	1300.	7	0	0.00				2	0	0.00	5	0	0.00			
	Fresh Acute	82.	7	0	0.00				2	0	0.00	5	0	0.00			
01065 NICKEL, DISSOLVED	Drinking Water	15.	7	2	0.29				2	0	0.00	5	2	0.40			
	Fresh Acute	1400.	7	0	0.00				2	0	0.00	5	0	0.00			
01092 ZINC, TOTAL	Drinking Water	100.	7	0	0.00				2	0	0.00	5	0	0.00			
	Fresh Acute	120.	7	0	0.00				2	0	0.00	5	0	0.00			
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Drinking Water	5000.	7	0	0.00				2	0	0.00	5	0	0.00			
71900 MERCURY, TOTAL	Other-Hi Lim.	200.	39	14	0.36	10	6	0.60	16	3	0.19	13	5	0.38			
	Fresh Acute	2.4	7	0	0.00				2	0	0.00	5	0	0.00			
	Drinking Water	2.	7	0	0.00				2	0	0.00	5	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0009

NPS Station ID: RICH0009  
Location: J-76 KINGSLAND CREEK / JAMES RIVER  
Station Type: /TYP/A/AMBNT/STREAM  
RMI-Indexes:  
RMI-Miles:  
HUC: 02080206  
Major Basin: NORTH ATLANTIC  
Minor Basin: CHESAPEAKE BAY  
RF1 Index: 02080206  
RF3 Index: 02080206147202.89  
Description:  
J-76 KINGSLAND CREEK / JAMES RIVER

LAT/LON: 37.340281/ -77.338059

Agency: 21MDEXP  
FIPS State/County: 24990 MARYLAND/  
STORET Station ID(s): 73077722002157  
Within Park Boundary: No

Date Created: 06/27/81

Depth of Water: 0  
Elevation: 0  
RF1 Mile Point: 0.000  
RF3 Mile Point: 3.68

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 13.20  
Distance from RF3: 0.02

On/Off RF1:  
On/Off RF3:

## Parameter Inventory for Station: RICH0009

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* Data for this station locked by controlling agency \*\*\*\*\*

## Station Inventory for Station: RICH0010

NPS Station ID: RICH0010  
 Location: RT. 616 BRIDGE S OF CHESTER  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080207  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080207  
 RF3 Index: 02080207116900.70  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: ASHTON CREEK SECTION: 02B TOPO MAP #: 0133 TOPO MAP NAME: CHESTER, VA

LAT/LON: 37.341392/ -77.442503

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-ASH006.38 /VA2-02BX0030/VA2-4X0030  
 Within Park Boundary: No

Date Created: / /  
 Depth of Water: 0  
 Elevation: 0  
 Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 22.50  
 Distance from RF3: 0.00  
 On/Off RF1:  
 On/Off RF3:

RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.73

### Parameter Inventory for Station: RICH0010

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-09/19/73	4	21.95	20.975	25.6	14.4	24.709	4.971	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-09/19/73	4	6.7	6.65	9.2	4.	4.837	2.199	**	**	**	**
00400	PH (STANDARD UNITS)	04/19/73-09/19/73	4	6.5	6.575	6.8	6.5	0.022	0.15	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/19/73-09/19/73	4	6.5	6.558	6.8	6.5	0.023	0.151	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-09/19/73	4	0.316	0.277	0.316	0.158	0.006	0.079	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/19/73-09/19/73	4	0.8	0.812	1.599	0.05	0.64	0.8	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-09/19/73	4##	0.005	0.041	0.15	0.005	0.005	0.073	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/19/73-09/19/73	4	0.145	0.699	2.5	0.005	1.447	1.203	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-09/19/73	4	1.5	2.05	4.599	0.6	3.308	1.819	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-09/19/73	4	250.	262.5	500.	50.	48958.333	221.265	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/19/73-09/19/73	4	2.301	2.25	2.699	1.699	0.231	0.48	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			177.828								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/19/73-09/19/73	4##	0.175	0.8	2.8	0.05	1.792	1.339	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/19/73-09/19/73	4	0.2	0.812	2.799	0.05	1.766	1.329	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0010

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	4	1	0.25	2	1	0.50			2	0	0.00			
00400	PH	Fresh Chronic	9.	4	0	0.00	2	0	0.00			2	0	0.00			
		Other-Lo Lim.	6.5	4	3	0.75	2	1	0.50			2	2	1.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	4	0	0.00	2	0	0.00			2	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	4	0	0.00	2	0	0.00			2	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	4	2	0.50	2	0	0.00			2	2	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0011

NPS Station ID: RICH0011

Location: BUOY 137

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: 02-NORTH ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080206045

RF3 Index: 02080206004500.00

Description:

VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
RIVER: JAMES RIVER SECTION: 02A TOPO MAP #: 0138 TOPO MAP NAME: HOPEWELL, VA

LAT/LON: 37.357504/ -77.302782

Agency: 21VASWCB

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): 2-JMS087.01 /VA2-02AX0134/VA2-4X0134

Within Park Boundary: No

Date Created: / /

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 2.770

RF3 Mile Point: 0.20

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.21

On/Off RF1: OFF

On/Off RF3:

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	147	22.8	21.646	32.6	0.	67.904	8.24	7.88	17.2	28.5	30.8
00070	TURBIDITY, (JACKSON CANDLE UNITS)	06/04/75-07/07/94	20	12.	13.26	33.	7.1	41.28	6.425	7.4	8.025	15.	21.8
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/07/94-12/15/98	54	16.6	20.428	154.	5.8	409.31	20.231	10.6	12.975	22.	27.65
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	9##	0.105	0.221	0.7	0.09	0.06	0.245	0.09	0.09	0.353	0.7
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	109	217.	231.073	464.	106.	5859.328	76.546	138.	169.5	290.5	337.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/07/94-12/15/98	54	186.5	209.111	419.	106.	5379.346	73.344	121.5	154.25	256.75	321.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	09/08/94-11/18/98	33	0.	0.006	0.2	0.	0.001	0.035	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-12/15/98	102	8.35	8.732	14.2	4.9	4.138	2.034	6.6	7.275	9.65	12.
00300	OXYGEN, DISSOLVED MG/L	05/26/74-07/07/94	44	7.55	7.655	12.6	4.1	2.353	1.534	5.6	6.625	8.575	9.5
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	69	2.	2.036	5.	0.5	1.444	1.202	0.5	1.	3.	4.
00340	COD, .25N K2CR207 MG/L	06/04/75-12/15/98	85	12.	13.304	77.	0.3	83.937	9.162	5.	8.	18.	21.4
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	148	7.5	7.503	9.1	6.49	0.152	0.39	7.1	7.23	7.71	8.
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	148	7.5	7.353	9.1	6.49	0.175	0.418	7.1	7.23	7.71	8.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	148	0.032	0.044	0.324	0.001	0.002	0.043	0.01	0.019	0.059	0.079
00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	55	7.2	7.269	8.	6.6	0.107	0.327	6.76	7.1	7.5	7.7
00403	CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	55	7.2	7.152	8.	6.6	0.121	0.348	6.76	7.1	7.5	7.7
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	55	0.063	0.071	0.251	0.01	0.003	0.055	0.02	0.032	0.079	0.175
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	58	48.	50.379	76.	28.	141.783	11.907	36.	41.75	59.	69.2
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/16/83-10/03/83	3	0.	0.	0.	0.	0.	0.	**	**	**	**
00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	84	138.	145.726	263.	87.	1565.358	39.565	100.	116.25	168.	203.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	84	34.5	36.214	98.	9.	210.243	14.5	21.	27.25	42.75	57.5
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	84	107.	109.512	207.	21.	1495.265	38.669	67.	85.	131.5	166.
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-10/03/83	4	176.	174.5	200.	146.	705.	26.552	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	93	19.	21.36	149.	1.5	343.317	18.529	8.	14.	24.	33.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	93	4.	4.892	15.	0.	10.282	3.207	1.5	3.	6.	8.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	90	14.	16.628	134.	0.	293.571	17.134	4.1	9.	20.	27.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	97	0.11	0.157	0.65	0.005	0.014	0.119	0.05	0.075	0.22	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	96	0.02	0.03	0.2	0.005	0.001	0.035	0.005	0.01	0.03	0.07
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	96	0.33	0.367	1.04	0.07	0.035	0.188	0.16	0.243	0.455	0.67
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/16/83-10/03/83	3	0.3	0.367	0.6	0.2	0.043	0.208	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	96	0.5	0.572	1.199	0.1	0.066	0.257	0.3	0.4	0.7	1.
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-10/03/83	3	0.8	0.8	1.	0.6	0.04	0.2	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## Parameter Inventory for Station: RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	70	0.1	0.109	0.4	0.05	0.003	0.052	0.06	0.08	0.12	0.17
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	08/16/83-10/03/83	3 ##	0.05	0.067	0.1	0.05	0.001	0.029	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-07/07/94	17	0.07	0.135	0.8	0.	0.037	0.193	0.	0.04	0.155	0.44
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-08/20/96	42	5.5	5.829	10.	2.1	5.037	2.244	3.2	3.95	7.775	9.7
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	07/07/94-12/15/98	54	62.	64.222	116.	26.	298.063	17.264	43.	51.75	71.25	89.5
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	79	12.	14.329	41.	2.5	70.91	8.421	6.	8.	20.	27.
00945	SULFATE, TOTAL (MGL AS SO <sub>4</sub> )	07/07/94-12/15/98	54	18.	22.426	62.	9.	151.042	12.29	10.	13.75	29.25	39.
01002	ARSENIC, TOTAL (UG/L AS AS)	05/04/76-10/28/82	3 ##	1.	1.167	2.	0.5	0.583	0.764	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/04/76-10/28/82	3 ##	5.	3.5	5.	0.5	6.75	2.598	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	06/04/75-10/28/82	7 ##	5.	3.071	5.	0.5	5.786	2.405	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	06/04/75-10/28/82	7	10.	11.429	20.	5.	39.286	6.268	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	06/04/75-10/28/82	7	3.	4.357	10.	0.5	13.56	3.682	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	06/04/75-05/22/78	3 ##	50.	50.	50.	0.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	4 ##	12.5	20.	50.	5.	450.	21.213	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	06/04/75-10/28/82	7	20.	22.143	70.	5.	540.476	23.248	**	**	**	**
31503	COLIFORM, TOT, MEMBR FILTER, DELAYED, M-ENDO MED, 35 C	05/26/74-05/26/74	1	15000.	15000.	15000.	0.	0.	0.	**	**	**	**
31503	LOG COLIFORM, TOT, MEMBR FILTER, DELAYED, M-ENDO MED, 3	05/26/74-05/26/74	1	4.176	4.176	4.176	0.	0.	0.	**	**	**	**
31503	GM COLIFORM, TOT, MEMBR FILTER, DELAYED, M-ENDO MED, 35			GEOMETRIC MEAN = 15000.									
31506	COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-10/03/83	3	930.	1253.333	2400.	430.	1048633.333	1024.028	**	**	**	**
31506	LOG COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-10/03/83	3	2.968	2.994	3.38	2.633	0.14	0.374	**	**	**	**
31506	GM COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.			GEOMETRIC MEAN = 986.403									
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	07/07/94-12/15/98	106	101.5	968.34	16000.	9.	8627910.322	2937.33	9.	20.	330.	2200.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	07/07/94-12/15/98	106	2.005	2.083	4.204	0.954	0.697	0.835	0.954	1.301	2.519	3.342
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)			GEOMETRIC MEAN = 121.013									
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/26/74-07/07/94	41	50.	204.976	1500.	23.	125618.424	354.427	50.	50.	150.	700.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/26/74-07/07/94	41	1.699	1.995	3.176	1.362	0.198	0.445	1.699	1.699	2.151	2.845
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN = 98.835									
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/16/83-10/03/83	4	31.	31.025	38.5	23.6	48.763	6.983	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID, METH.	08/16/83-10/03/83	4	18.25	16.85	20.2	10.7	18.87	4.344	**	**	**	**
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER, UG/L	10/21/97-10/21/97	2	8.	8.	8.	0.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-10/03/83	4	0.1	0.125	0.3	0.	0.022	0.15	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	05/26/74-04/24/79	26 ##	0.05	0.073	0.2	0.05	0.001	0.035	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	80	0.05	0.056	0.14	0.01	0.001	0.023	0.03	0.04	0.068	0.089
71900	MERCURY, TOTAL (UG/L AS HG)	06/04/75-10/28/82	7 ##	0.15	0.193	0.25	0.15	0.003	0.053	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0011

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	20	0	0.00	10	0	0.00	3	0	0.00	7	0	0.00
0076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	54	2	0.04	15	0	0.00	23	2	0.09	16	0	0.00
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	102	0	0.00	43	0	0.00	28	0	0.00	31	0	0.00
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	44	0	0.00	20	0	0.00	8	0	0.00	16	0	0.00
00400	PH	Fresh Chronic	9.	148	1	0.01	65	1	0.02	36	0	0.00	47	0	0.00
		Other-Lo Lim.	6.5	148	1	0.01	65	1	0.02	36	0	0.00	47	0	0.00
00403	PH, LAB	Fresh Chronic	9.	55	0	0.00	15	0	0.00	23	0	0.00	17	0	0.00
		Other-Lo Lim.	6.5	55	0	0.00	15	0	0.00	23	0	0.00	17	0	0.00
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	96	0	0.00	33	0	0.00	31	0	0.00	32	0	0.00
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	96	0	0.00	33	0	0.00	31	0	0.00	32	0	0.00
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	3	0	0.00	3	0	0.00						
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	79	0	0.00	25	0	0.00	27	0	0.00	27	0	0.00
		Drinking Water	250.	79	0	0.00	25	0	0.00	27	0	0.00	27	0	0.00
00945	SULFATE, TOTAL (AS SO <sub>4</sub> )	Drinking Water	250.	54	0	0.00	15	0	0.00	23	0	0.00	16	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00				1	0	0.00	2	0	0.00
		Drinking Water	50.	3	0	0.00				1	0	0.00	2	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00				1	0	0.00	0	0.00	
		Drinking Water	5.	1 &	0	0.00				1	0	0.00	0	0.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0011

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01034	CHROMIUM, TOTAL	Drinking Water	100.	7	0	0.00				2	0	0.00	5	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	7	2	0.29				2	1	0.50	5	1	0.20			
		Drinking Water	1300.	7	0	0.00				2	0	0.00	5	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	7	0	0.00				2	0	0.00	5	0	0.00			
		Drinking Water	15.	7	0	0.00				2	0	0.00	5	0	0.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	3	0	0.00							3	0	0.00			
		Drinking Water	100.	3	0	0.00							3	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00				2	0	0.00	2	0	0.00			
		Drinking Water	100.	4	0	0.00				2	0	0.00	2	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	7	0	0.00				2	0	0.00	5	0	0.00			
		Drinking Water	5000.	7	0	0.00				2	0	0.00	5	0	0.00			
31503	COLIFORM,TOT,MEMBRANE FILTR,DELAY. M-END	Other-Hi Lim.	1000.	1	1	1.00							1	1	1.00			
31506	COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	3	1	0.33	3	1	0.33									
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	106	41	0.39	47	14	0.30	28	15	0.54	31	12	0.39			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	41	10	0.24	19	4	0.21	7	2	0.29	15	4	0.27			
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	Fresh Acute	2000.	2	0	0.00				2	0	0.00						
		Drinking Water	6.	2	2	1.00				2	2	1.00						
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00				1	0	0.00	1	0	0.00			
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	2	0	0.00				1	0	0.00	1	0	0.00			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	4	2	0.50	3	2	0.67				1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	7	0	0.00				2	0	0.00	5	0	0.00			
		Drinking Water	2.	7	0	0.00				2	0	0.00	5	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1974 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	7	24.	24.386	28.9	17.2	16.311	4.039	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	1	1.	1.	1.	0.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	7	7.5	7.386	7.5	7.1	0.025	0.157	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	7	7.5	7.359	7.5	7.1	0.026	0.16	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	7	0.032	0.044	0.079	0.032	0.	0.018	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	1	0.079	0.079	0.079	0.079	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	1	36.	36.	36.	36.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	2	135.	135.	183.	87.	4608.	67.882	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	2	67.	67.	68.	66.	2.	1.414	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	2	68.	68.	115.	21.	4418.	66.468	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	6	15.	18.	35.	11.	74.4	8.626	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	6	7.	8.667	15.	5.	15.467	3.933	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	6	7.	9.333	28.	0.	95.467	9.771	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.2	0.183	0.3	0.1	0.006	0.075	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	6##	0.005	0.009	0.03	0.005	0.	0.01	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.45	0.492	0.9	0.16	0.076	0.276	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	6	0.45	0.633	1.199	0.3	0.166	0.408	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	5	11.	11.	16.	5.	18.5	4.301	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	6##	0.05	0.067	0.1	0.05	0.001	0.026	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	8	27.5	25.688	30.	17.2	21.007	4.583	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	1	2.	2.	2.	0.	0.	0.	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	06/04/75-12/15/98	7	20.	21.614	77.	0.3	683.808	26.15	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	9	7.5	7.4	7.5	7.2	0.017	0.132	7.2	7.25	7.5	7.5
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	9	7.5	7.381	7.5	7.2	0.018	0.134	7.2	7.25	7.5	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	9	0.032	0.042	0.063	0.032	0.	0.014	0.032	0.032	0.057	0.063
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	5	123.	121.8	149.	100.	387.7	19.69	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	5	54.	55.6	98.	21.	769.3	27.736	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	5	51.	66.2	110.	46.	746.2	27.317	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	7	15.	16.286	32.	6.	80.238	8.958	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	7	4.	5.143	14.	0.	19.81	4.451	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	7	8.	11.143	28.	4.	62.143	7.883	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	9	0.1	0.128	0.3	0.05	0.006	0.075	0.05	0.1	0.15	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	9	0.02	0.017	0.03	0.005	0.	0.008	0.005	0.01	0.02	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	9	0.3	0.277	0.4	0.07	0.013	0.112	0.07	0.185	0.385	0.4
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	9	0.4	0.367	0.7	0.1	0.043	0.206	0.1	0.2	0.55	0.7
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	9	9.	10.333	30.	4.	59.	7.681	4.	6.	10.	30.
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	9##	0.05	0.047	0.05	0.03	0.	0.007	0.03	0.045	0.05	0.05

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### Annual Analysis for 1976 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	4	16.35	15.125	22.2	5.6	59.409	7.708	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	06/04/75-12/15/98	4##	2.	5.5	16.	2.	49.	7.	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	4	7.5	7.475	7.6	7.3	0.016	0.126	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	4	7.5	7.461	7.6	7.3	0.016	0.127	**	**	**	**

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### Annual Analysis for 1976 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	4	0.032	0.035	0.05	0.025	0.	0.011	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	4	125.	124.25	130.	117.	29.583	5.439	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	4	58.	53.	62.	34.	164.667	12.832	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	4	68.5	71.25	90.	58.	180.917	13.451	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	4	7.	9.5	20.	4.	51.667	7.188	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	4	1.	1.5	4.	0.	3.667	1.915	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	4	5.	8.	20.	2.	66.667	8.165	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	4	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	4	0.01	0.009	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	4	0.38	0.355	0.5	0.16	0.025	0.16	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	4	0.4	0.4	0.5	0.3	0.007	0.082	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	4	8.5	8.5	10.	7.	1.667	1.291	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	4	0.055	0.058	0.07	0.05	0.	0.01	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	6	6.5	10.817	28.5	0.	124.782	11.171	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	06/04/75-12/15/98	6	17.5	16.	24.	4.	53.2	7.294	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	6	7.9	7.85	8.3	7.5	0.099	0.315	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	6	7.889	7.761	8.3	7.5	0.109	0.33	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	6	0.013	0.017	0.032	0.005	0.	0.012	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	5	145.	137.4	168.	88.	934.8	30.574	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	5	39.	38.8	64.	23.	250.7	15.834	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	5	104.	98.6	128.	65.	537.8	23.191	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	10.	12.6	22.	9.	28.8	5.367	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	3.	4.2	12.	1.	20.7	4.55	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	9.	8.4	19.	0.	48.8	6.986	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.1	0.117	0.2	0.1	0.002	0.041	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.02	0.022	0.04	0.01	0.	0.013	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.335	0.353	0.6	0.19	0.022	0.148	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	6	0.25	0.283	0.4	0.2	0.01	0.098	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	6	15.	13.833	21.	4.	40.567	6.369	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	6	0.05	0.062	0.14	0.02	0.002	0.047	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	06/04/75-12/15/98	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	1	90.	90.	90.	90.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	1	43.	43.	43.	43.	0.	0.	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	1	47.	47.	47.	47.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	1##	0.05	0.05	0.05	0.05	0.05	0.	0.	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	1	0.19	0.19	0.19	0.19	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	1	6.	6.	6.	6.	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	1	0.02	0.02	0.02	0.02	0.02	0.	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	3	22.	23.	28.	19.	21.	4.583	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	3	225.	243.667	337.	169.	7317.333	85.541	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	3	2.	2.333	4.	1.	2.333	1.528	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	06/04/75-12/15/98	3	18.	15.	19.	8.	37.	6.083	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	3	8.2	8.233	8.5	8.	0.063	0.252	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	3	8.2	8.188	8.5	8.	0.066	0.258	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	3	0.006	0.006	0.01	0.003	0.	0.003	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	3	142.	161.	231.	110.	3931.	62.698	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	3	28.	32.	43.	25.	93.	9.644	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	3	114.	129.	188.	85.	2821.	53.113	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	3	26.	27.667	34.	23.	32.333	5.686	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	3	8.	7.667	9.	6.	2.333	1.528	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	3	20.	20.	25.	15.	25.	5.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	3##	0.05	0.133	0.3	0.05	0.021	0.144	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	3	0.03	0.033	0.06	0.01	0.001	0.025	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	3	0.25	0.47	1.04	0.12	0.248	0.498	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	3	0.3	0.4	0.6	0.3	0.03	0.173	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	3##	0.05	0.067	0.1	0.05	0.001	0.029	**	**	**	**

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### Annual Analysis for 1981 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	3	27.	23.5	31.	12.5	94.75	9.734	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	3	241.	252.	301.	214.	1983.	44.531	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	3	4.	3.667	5.	2.	2.333	1.528	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	06/04/75-12/15/98	3	17.	17.	22.	12.	25.	5.	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	3	7.4	7.9	9.1	7.2	1.09	1.044	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	3	7.4	7.461	9.1	7.2	1.379	1.174	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	3	0.04	0.035	0.063	0.001	0.001	0.031	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	3	155.	165.333	197.	144.	782.333	27.97	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	3	41.	39.	48.	28.	103.	10.149	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	3	116.	126.333	149.	114.	386.333	19.655	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	3	9.	10.	16.	5.	31.	5.568	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	3	3.	3.	4.	2.	1.	1.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	3	5.	7.	14.	2.	39.	6.245	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	3	0.3	0.283	0.5	0.05	0.051	0.225	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	3	0.07	0.073	0.13	0.02	0.003	0.055	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	3	0.67	0.66	0.88	0.43	0.051	0.225	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	3	0.8	0.733	0.8	0.6	0.013	0.115	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	3	0.1	0.2	0.4	0.1	0.03	0.173	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	5	23.	20.5	29.5	11.5	56.625	7.525	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	5	192.	201.4	256.	165.	1236.3	35.161	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	5	3.	2.8	3.	2.	0.2	0.447	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	06/04/75-12/15/98	5	10.	14.	23.	8.	43.5	6.595	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	5	7.2	7.2	7.5	6.7	0.11	0.332	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	5	7.2	7.091	7.5	6.7	0.125	0.353	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	5	0.063	0.081	0.2	0.032	0.005	0.069	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	5	140.	139.8	172.	100.	690.2	26.272	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	5	31.	30.6	36.	26.	14.8	3.847	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	5	112.	109.2	136.	74.	527.2	22.961	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	16.	18.4	29.	12.	43.3	6.58	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	3.	3.8	7.	2.	3.7	1.924	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	13.	14.6	25.	9.	36.8	6.066	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	5	0.3	0.32	0.4	0.2	0.007	0.084	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	5	0.02	0.028	0.05	0.01	0.	0.016	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	5	0.36	0.388	0.58	0.17	0.025	0.159	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	5	0.7	0.66	0.8	0.4	0.023	0.152	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	5	0.2	0.18	0.2	0.1	0.002	0.045	**	**	**	**

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### Annual Analysis for 1983 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	5	26.	24.7	28.	20.5	13.7	3.701	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	5	285.	246.6	325.	158.	6595.3	81.211	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	2	3.5	3.5	5.	2.	4.5	2.121	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	06/04/75-12/15/98	2	10.	10.	14.	6.	32.	5.657	**	**	**	**
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	5	7.8	7.7	8.	7.1	0.125	0.354	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	5	7.8	7.56	8.	7.1	0.15	0.387	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	5	0.016	0.028	0.079	0.01	0.001	0.029	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	3	60.	58.333	62.	53.	22.333	4.726	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	2	138.5	138.5	161.	116.	1012.5	31.82	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	2	36.5	36.5	42.	31.	60.5	7.778	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	2	102.	102.	119.	85.	578.	24.042	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	21.	21.8	31.	15.	45.7	6.76	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	5	6.	6.2	10.	2.	9.2	3.033	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	2	21.	21.	23.	19.	8.	2.828	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	6##	0.05	0.084	0.2	0.005	0.006	0.074	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	5	0.1	0.106	0.2	0.01	0.009	0.093	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	5	0.4	0.49	0.8	0.18	0.065	0.254	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	5	0.7	0.76	1.1	0.6	0.043	0.207	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	5	0.1	0.09	0.1	0.05	0.001	0.022	**	**	**	**

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### Annual Analysis for 1994 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	14	26.5	24.3	32.1	12.5	45.045	6.712	12.7	18.8	30.025	31.8
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/07/94-12/15/98	6	12.5	14.667	25.	7.4	38.067	6.17	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	11	255.	256.	331.	182.	1901.4	43.605	187.2	223	290	323
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/07/94-12/15/98	6	227.	223.667	266.	178.	1144.667	33.833	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-12/15/98	13	8.8	8.169	10.9	5.3	3.042	1.744	5.42	6.6	9.25	10.58
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	6	2.65	3.017	4.6	1.9	1.046	1.023	**	**	**	**

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### Annual Analysis for 1994 - Station RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00340 COD, 25N K2CR2O7 MG/L	06/04/75-12/15/98	6	16.5	16.	19.	12.	7.6	2.757	**	**	**	**
00400 PH (STANDARD UNITS)	05/26/74-12/15/98	14	7.45	7.469	8.	7.13	0.096	0.309	7.135	7.15	7.718	7.96
00400 CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	14	7.441	7.378	8.	7.13	0.104	0.323	7.135	7.15	7.717	7.96
00400 MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/26/74-12/15/98	14	0.036	0.042	0.074	0.01	0.001	0.025	0.011	0.019	0.071	0.073
00403 PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	6	7.15	7.167	7.3	7.1	0.007	0.082	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	6	7.147	7.161	7.3	7.1	0.007	0.082	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/26/74-12/15/98	6	0.071	0.069	0.079	0.05	0.	0.012	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	05/26/74-12/15/98	6	50.	50.333	58.	44.	29.867	5.465	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	6	151.5	160.	202.	132.	765.2	27.662	**	**	**	**
00505 RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	6	37.	37.667	60.	23.	156.667	12.517	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	6	114.5	122.333	146.	108.	291.467	17.072	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	6	16.	14.25	22.	1.5	46.375	6.81	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	6	4.	3.333	5.	1.5	2.167	1.472	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	6	11.5	11.083	18.	1.5	30.042	5.481	**	**	**	**
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.265	0.355	0.65	0.22	0.033	0.182	**	**	**	**
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.07	0.055	0.08	0.02	0.001	0.027	**	**	**	**
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	6	0.285	0.292	0.4	0.16	0.007	0.082	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	6	1.	0.933	1.1	0.6	0.039	0.197	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	6	0.115	0.115	0.17	0.06	0.001	0.035	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	07/07/94-12/15/98	6	65.	65.5	71.	59.	23.1	4.806	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	6	21.5	21.	27.	15.	19.6	4.427	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	07/07/94-12/15/98	6	25.	25.667	35.	18.	51.867	7.202	**	**	**	**
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	14	45.	91.	330.	9.	11659.692	107.98	9.	19.5	125.	325.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	14	1.653	1.701	2.519	0.954	0.248	0.498	0.954	1.29	2.089	2.512
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			50.182								
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	6	0.05	0.055	0.1	0.03	0.001	0.027	**	**	**	**

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### Annual Analysis for 1995 - Station RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	20	23.2	20.955	32.6	6.	68.949	8.304	7.33	15.85	27.525	31.07
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/07/94-12/15/98	12	17.15	19.033	32.	11.6	39.622	6.295	12.14	13.95	23.5	30.89
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	13	185.	228.	339.	156.	5639.	75.093	157.2	166.5	313.5	338.2
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/07/94-12/15/98	12	185.	209.917	369.	139.	4700.265	68.558	140.5	163.5	257.5	346.8
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-12/15/98	20	8.5	8.725	12.4	4.9	4.836	2.199	6.02	6.9	11.	12.
00310 BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	12	2.5	2.117	3.1	0.5	1.063	1.031	0.5	1.05	3.	3.07
00340 COD, 25N K2CR2O7 MG/L	06/04/75-12/15/98	12	16.	15.25	24.	9.	17.477	4.181	9.3	11.5	18.	22.2
00400 PH (STANDARD UNITS)	05/26/74-12/15/98	20	7.32	7.297	8.38	6.49	0.163	0.404	6.607	7.11	7.405	7.882
00400 CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	20	7.319	7.128	8.38	6.49	0.193	0.439	6.607	7.11	7.405	7.882
00400 MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/26/74-12/15/98	20	0.048	0.074	0.324	0.004	0.006	0.081	0.014	0.039	0.078	0.257
00403 PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	12	7.15	7.25	7.8	6.7	0.119	0.345	6.76	6.95	7.5	7.77
00403 CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	12	7.147	7.133	7.8	6.7	0.134	0.366	6.76	6.95	7.5	7.77
00403 MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/26/74-12/15/98	12	0.071	0.074	0.2	0.016	0.003	0.055	0.017	0.032	0.114	0.177
00410 ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	05/26/74-12/15/98	12	45.5	49.833	71.	37.	123.424	11.11	37.9	41.75	61.	69.5
00500 RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	12	138.	146.333	227.	107.	1271.152	35.653	107.3	116.5	173.75	212.9
00505 RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	12	36.	33.333	50.	11.	127.515	11.292	14.	25.	42.75	47.9
00510 RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	12	109.	113.	184.	72.	1145.091	33.839	72.6	84.	140.75	172.9
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	23.	22.167	30.	15.	18.152	4.26	15.3	19.25	24.75	28.8
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	5.	5.25	9.	3.	4.205	2.05	3.	3.	6.75	8.7
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	16.	16.917	25.	12.	13.902	3.728	12.3	14.25	19.75	23.8
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.22	0.213	0.35	0.08	0.007	0.085	0.086	0.135	0.28	0.338
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.02	0.036	0.13	0.01	0.001	0.036	0.01	0.013	0.04	0.115
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.32	0.303	0.69	0.08	0.024	0.155	0.104	0.17	0.345	0.603
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	12	0.5	0.592	0.9	0.4	0.03	0.173	0.4	0.5	0.7	0.9
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	12	0.11	0.103	0.14	0.05	0.001	0.025	0.056	0.085	0.12	0.134

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### Annual Analysis for 1995 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/07/94-12/15/98	12	60.	66.	100.	40.	325.818	18.05	43.	52.	79.75	97.6
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	12	13.5	16.	35.	8.	70.	8.367	8.	9.5	21.75	32.6
00945	SULFATE, TOTAL (MG/L AS SO4)	07/07/94-12/15/98	12	19.	20.583	38.	12.	54.447	7.379	12.3	15.5	24.	35.6
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	21	230.	1588.762	16000.	9.	14994350.39	3872.254	11.2	42.5	745.	7840.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	21	2.362	2.323	4.204	0.954	0.819	0.905	1.024	1.628	2.871	3.847
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	210.22								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	12	0.065	0.067	0.11	0.02	0.001	0.026	0.026	0.05	0.087	0.107

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	24	21.9	20.275	30.1	4.4	69.091	8.312	5.25	16.85	28.2	29.55
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/07/94-12/15/98	12	18.2	28.317	154.	5.8	1600.709	40.009	7.03	12.3	24.25	115.3
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	24	176.5	183.75	303.	111.	2083.935	45.65	126.5	156.5	206.5	253.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/07/94-12/15/98	12	169.5	168.167	289.	106.	2592.879	50.92	109.	120.75	185.5	266.8
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-12/15/98	24	8.2	8.833	13.4	6.1	4.614	2.148	6.85	7.175	9.375	12.75
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	12 ##	0.75	1.25	3.	0.5	0.977	0.989	0.5	0.5	2.	3.
00340	COD, 25N K2CR207 MG/L	06/04/75-12/15/98	12	12.	11.917	23.	5.	23.356	4.833	5.3	7.75	13.75	20.9
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	24	7.29	7.346	8.32	6.83	0.093	0.305	7.07	7.123	7.518	7.715
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	24	7.29	7.266	8.32	6.83	0.1	0.316	7.07	7.123	7.517	7.715
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	24	0.051	0.054	0.148	0.005	0.001	0.031	0.019	0.03	0.076	0.085
00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	12	7.35	7.408	8.	7.	0.088	0.297	7.03	7.2	7.65	7.94
00403	CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	12	7.347	7.329	8.	7.	0.095	0.308	7.03	7.2	7.65	7.94
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	12	0.045	0.047	0.1	0.01	0.001	0.027	0.012	0.023	0.063	0.094
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	12	45.5	44.583	69.	30.	117.356	10.833	30.6	35.	48.	65.1
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	12	124.	133.583	241.	88.	1842.447	42.924	89.5	102.25	142.5	224.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	12	26.5	26.583	42.	9.	100.083	10.004	10.2	21.	35.	41.4
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	12	100.5	107.	201.	67.	1362.364	36.91	68.5	78.75	113.25	185.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	21.	31.	149.	13.	1420.364	37.688	13.	14.75	24.	115.1
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	3.5	4.375	15.	1.5	11.96	3.458	1.95	3.	4.	12.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	16.5	26.583	134.	10.	1178.992	34.336	10.3	11.75	20.75	103.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.13	0.156	0.37	0.06	0.007	0.083	0.066	0.113	0.188	0.331
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.02	0.02	0.05	0.005	0.	0.013	0.007	0.01	0.02	0.047
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.335	0.318	0.44	0.1	0.009	0.097	0.139	0.248	0.4	0.434
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	12	0.5	0.533	0.9	0.3	0.026	0.161	0.33	0.4	0.6	0.84
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	12	0.095	0.102	0.19	0.07	0.001	0.032	0.073	0.08	0.11	0.169
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/07/94-12/15/98	12	59.5	57.	84.	26.	189.273	13.758	32.6	49.	63.5	78.9
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	12	10.5	10.792	22.	2.5	33.612	5.798	3.55	6.	13.5	21.4
00945	SULFATE, TOTAL (MG/L AS SO4)	07/07/94-12/15/98	12	14.	15.333	33.	9.	42.061	6.485	9.3	11.	16.75	29.4
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	24	230.	2316.5	16000.	9.	22126178.783	4703.847	14.5	34.5	1600.	12600.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	24	2.362	2.461	4.204	0.954	1.	1.	1.128	1.449	3.201	4.084
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	289.072								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	12	0.05	0.047	0.08	0.02	0.	0.015	0.023	0.04	0.05	0.074

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	23	22.8	21.961	31.2	2.3	79.552	8.919	7.24	15.4	30.4	31.06
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/07/94-12/15/98	12	16.7	17.083	27.	10.7	20.167	4.491	11.36	13.825	19.275	25.77
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	21	238.	250.19	378.	131.	4969.162	70.492	146.6	204.	297.5	360.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/07/94-12/15/98	12	215.	222.833	351.	136.	3914.152	62.563	138.7	180.25	258.25	335.7

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### Annual Analysis for 1997 - Station RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-12/15/98	21	7.9	8.648	14.2	6.1	5.543	2.354	6.24	7.	10.35	13.46
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	12	1.	1.333	2.	0.5	0.379	0.615	0.5	1.	2.	2.
00340	COD, 25N K2CR2O7 MG/L	06/04/75-12/15/98	12	8.	8.75	18.	5.	12.932	3.596	5.	6.25	10.	16.2
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	23	7.44	7.466	8.16	6.8	0.095	0.309	7.004	7.32	7.71	7.842
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	23	7.44	7.36	8.16	6.8	0.107	0.327	7.004	7.32	7.71	7.842
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	23	0.036	0.044	0.158	0.007	0.001	0.035	0.015	0.019	0.048	0.101
00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	12	7.5	7.475	8.	7.2	0.051	0.226	7.2	7.3	7.575	7.91
00403	CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	12	7.5	7.428	8.	7.2	0.054	0.231	7.2	7.3	7.575	7.91
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	12	0.032	0.037	0.063	0.01	0.	0.016	0.013	0.027	0.05	0.063
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	12	53.5	52.417	72.	28.	138.992	11.79	30.4	47.5	59.	69.3
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	12	141.	150.583	205.	102.	1141.356	33.784	105.9	120.	187.	201.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	12	37.	34.667	50.	14.	96.606	9.829	17.9	27.25	42.25	48.2
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	12	110.5	115.917	178.	75.	1015.72	31.87	76.2	88.75	138.75	170.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	20.	20.75	42.	5.	125.659	11.21	5.9	12.25	24.	41.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	4.	3.792	8.	1.5	3.566	1.888	1.5	1.875	5.	7.1
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	15.5	16.917	35.	4.	91.902	9.587	4.6	10.	19.75	34.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.095	0.109	0.25	0.02	0.005	0.073	0.02	0.055	0.148	0.244
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.01	0.018	0.04	0.005	0.	0.014	0.005	0.006	0.03	0.04
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.43	0.384	0.67	0.11	0.034	0.186	0.113	0.183	0.53	0.64
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	12	0.5	0.55	1.1	0.3	0.052	0.228	0.3	0.4	0.7	0.98
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	12	0.09	0.092	0.17	0.06	0.001	0.029	0.06	0.065	0.1	0.149
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/07/94-12/15/98	12	68.	66.417	87.	43.	113.72	10.664	46.6	61.25	71.5	82.8
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	12	14.	17.333	34.	7.	64.061	8.004	8.2	12.	23.5	32.2
00945	SULFATE, TOTAL (MG/L AS SO4)	07/07/94-12/15/98	12	22.5	23.083	40.	10.	96.811	9.839	10.3	14.5	32.	37.9
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	23	78.	310.261	2200.	9.	295004.292	543.143	12.6	40.	210.	1100.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	23	1.892	1.993	3.342	0.954	0.442	0.664	1.075	1.602	2.322	3.041
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				98.409								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	12	0.06	0.061	0.08	0.03	0.	0.018	0.033	0.043	0.08	0.08

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### Annual Analysis for 1998 - Station RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	24	25.7	23.163	32.2	6.7	69.406	8.331	7.9	16.575	30.7	31.65
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/07/94-12/15/98	12	14.7	20.158	57.	8.7	193.928	13.926	9.24	12.475	23.9	51.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	24	244.	250.667	464.	106.	11473.623	107.115	121.	151.	326.25	413.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/07/94-12/15/98	12	205.5	228.25	419.	115.	11640.932	107.893	116.8	124.5	327.25	402.8
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-12/15/98	24	8.95	9.017	12.6	6.6	2.876	1.696	6.95	7.725	10.35	11.95
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	12 ##	1.5	2.	4.	1.	1.455	1.206	1.	1.	3.	4.
00340	COD, 25N K2CR2O7 MG/L	06/04/75-12/15/98	12	10.5	11.708	22.	2.5	28.294	5.319	4.15	9.	15.75	21.1
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	24	7.75	7.76	8.6	7.03	0.13	0.361	7.295	7.575	7.9	8.395
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	24	7.75	7.631	8.6	7.03	0.147	0.384	7.295	7.575	7.9	8.395
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	24	0.018	0.023	0.093	0.003	0.	0.02	0.004	0.013	0.027	0.052
00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	12	6.9	7.008	7.6	6.6	0.114	0.337	6.63	6.7	7.35	7.54
00403	CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	12	6.9	6.906	7.6	6.6	0.125	0.354	6.63	6.7	7.35	7.54
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	12	0.126	0.124	0.251	0.025	0.006	0.077	0.03	0.046	0.2	0.236
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	12	47.5	53.917	76.	37.	246.083	15.687	37.3	40.25	72.5	75.7
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	12	161.5	167.25	263.	94.	3340.568	57.798	96.7	117.	226.5	255.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	12	30.5	31.75	56.	16.	118.568	10.889	16.	27.25	37.75	51.8
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	12	130.5	135.5	207.	67.	2691.364	51.878	73.	88.25	196.	205.5
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	23.5	30.833	112.	11.	734.697	27.105	11.9	17.	34.	91.3
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	6.	6.375	14.	1.5	9.778	3.127	2.25	4.25	8.	12.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	12	18.	24.5	98.	9.	597.	24.434	9.	12.25	26.75	79.1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.055	0.053	0.13	0.02	0.001	0.034	0.02	0.02	0.06	0.121
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.02	0.021	0.04	0.005	0.	0.012	0.007	0.01	0.03	0.04
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	12	0.325	0.373	0.7	0.19	0.025	0.157	0.196	0.258	0.493	0.664

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### Annual Analysis for 1998 - Station RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	12	0.7	0.667	1.1	0.2	0.084	0.29	0.23	0.425	0.95	1.07
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	12	0.095	0.104	0.17	0.06	0.001	0.038	0.06	0.073	0.128	0.17
00900 HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	07/07/94-12/15/98	12	56.5	66.833	116.	41.	722.879	26.886	41.6	43.	91.25	111.5
00940 CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	12	13.	17.125	41.	2.5	161.46	12.707	3.55	6.	27.75	38.3
00945 SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	07/07/94-12/15/98	12	20.5	29.083	62.	10.	397.72	19.943	10.	10.25	51.5	59.3
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	24	68.	219.75	2200.	9.	200414.891	447.677	9.	9.	327.5	440.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/07/94-12/15/98	24	1.833	1.804	3.342	0.954	0.526	0.725	0.954	0.954	2.515	2.641
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				GEOMETRIC MEAN =	63.656							
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	12	0.06	0.051	0.08	0.01	0.	0.018	0.016	0.04	0.06	0.074

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	65	28.3	27.028	32.6	2.9	27.625	5.256	21.48	26.	30.4	31.28
00070	TURBIDITY, (JACKSON CANDLE UNITS)	06/04/75-07/07/94	10	9.75	13.63	33.	7.4	68.778	8.293	7.4	7.85	19.25	31.7
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	45	271.	262.089	361.	147.	3289.81	57.357	182.	222.5	304.	337.8
00300	OXYGEN, DISSOLVED MG/L	05/26/74-07/07/94	20	7.3	7.03	8.8	5.1	1.209	1.099	5.3	6.125	7.75	8.59
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	20	2.9	2.81	5.	0.5	1.257	1.121	1.1	2.	3.975	4.
00340	COD, 25N K2CR207 MG/L	06/04/75-12/15/98	26	15.	16.358	77.	0.3	187.607	13.697	5.5	10.	19.	22.6
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	65	7.5	7.564	9.1	6.49	0.192	0.439	7.1	7.295	7.765	8.09
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	65	7.5	7.373	9.1	6.49	0.229	0.479	7.1	7.295	7.765	8.09
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	65	0.032	0.042	0.324	0.001	0.003	0.051	0.008	0.017	0.051	0.079
00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	15	7.4	7.38	8.	6.7	0.1	0.317	6.94	7.2	7.6	7.82
00403	CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	15	7.4	7.269	8.	6.7	0.113	0.337	6.94	7.2	7.6	7.82
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	15	0.04	0.054	0.2	0.01	0.002	0.046	0.016	0.025	0.063	0.127
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	18	57.	55.889	71.	40.	83.634	9.145	43.6	46.5	63.25	69.2
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	23	155.	161.435	227.	123.	897.257	29.954	127.8	132.	186.	206.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	23	35.	34.609	50.	16.	82.067	9.059	21.8	28.	42.	47.6
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	23	115.	126.826	197.	76.	812.059	28.497	93.2	109.	147.	172.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	30	16.5	18.917	42.	1.5	77.76	8.818	9.	14.	22.5	33.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	30	5.	5.317	14.	0.	9.732	3.12	1.55	3.75	7.	9.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	27	13.	13.833	34.	1.5	61.981	7.873	5.	8.	17.	28.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	34	0.1	0.135	0.4	0.005	0.01	0.1	0.05	0.05	0.205	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	33	0.03	0.05	0.2	0.005	0.003	0.051	0.007	0.02	0.07	0.13
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	33	0.34	0.4	0.9	0.16	0.037	0.191	0.18	0.26	0.54	0.696
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	33	0.7	0.63	1.1	0.2	0.071	0.266	0.2	0.45	0.8	1.
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	22	0.1	0.107	0.2	0.05	0.002	0.039	0.053	0.093	0.12	0.184
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-08/20/96	15	7.7	7.04	10.	3.	6.314	2.513	3.48	4.5	9.	10.
00940	CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	25	17.	16.96	35.	4.	60.29	7.765	7.4	9.5	22.5	27.4
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/26/74-07/07/94	19	50.	142.316	700.	23.	40973.895	202.42	45.	50.	100.	700.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/26/74-07/07/94	19	1.699	1.923	2.845	1.362	0.158	0.397	1.653	1.699	2.	2.845
70507	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			83.732									
	GEOMETRIC MEAN =												
	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	26	0.05	0.055	0.1	0.03	0.	0.017	0.037	0.04	0.06	0.083

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	36	12.35	11.894	20.8	0.	33.971	5.828	4.82	6.9	17.875	19.79
00070	TURBIDITY, (JACKSON CANDLE UNITS)	06/04/75-07/07/94	3	14.	12.367	15.	8.1	13.903	3.729	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	31	241.	245.484	464.	106.	9812.725	99.059	127.	167.	331.	390.8
00300	OXYGEN, DISSOLVED MG/L	05/26/74-07/07/94	8	9.4	9.45	12.6	6.1	3.16	1.778	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	27	1.	1.533	4.6	0.5	1.146	1.071	0.5	0.5	2.	3.
00340	COD, 25N K2CR207 MG/L	06/04/75-12/15/98	30	12.	12.467	23.	2.	33.775	5.812	5.1	8.	18.	20.8
00400	PH (STANDARD UNITS)	05/26/74-12/15/98	36	7.335	7.34	8.2	6.7	0.101	0.318	6.907	7.143	7.5	7.773
00400	CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	36	7.335	7.236	8.2	6.7	0.112	0.335	6.907	7.142	7.5	7.773
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	36	0.046	0.058	0.2	0.006	0.002	0.042	0.017	0.032	0.072	0.125
00403	PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	23	7.2	7.209	8.	6.6	0.09	0.3	6.74	7.1	7.4	7.56
00403	CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	23	7.2	7.113	8.	6.6	0.1	0.315	6.74	7.1	7.4	7.56
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	23	0.063	0.077	0.251	0.01	0.003	0.057	0.028	0.04	0.079	0.183
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	23	47.	50.13	76.	30.	197.209	14.043	33.6	40.	58.	75.
00500	RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	30	148.	158.733	263.	88.	2203.857	46.945	107.9	120.	189.25	238.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	30	33.5	35.067	60.	13.	157.237	12.539	21.	26.5	42.25	56.9
00510	RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	30	117.	123.667	207.	58.	1890.437	43.479	69.5	87.5	143.	200.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	31	17.	24.065	149.	4.	869.129	29.481	5.6	13.	23.	27.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	31	3.	5.145	15.	1.5	15.953	3.994	1.5	3.	7.	13.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	31	13.	18.903	134.	0.	731.157	27.04	2.	9.	18.	21.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	31	0.15	0.197	0.65	0.02	0.024	0.154	0.024	0.08	0.29	0.48
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	31	0.02	0.021	0.08	0.005	0.	0.018	0.005	0.01	0.03	0.05

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	31	0.4	0.455	1.04	0.2	0.034	0.185	0.292	0.33	0.5	0.7
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	31	0.4	0.565	1.1	0.3	0.066	0.256	0.32	0.4	0.7	1.08
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	27	0.1	0.118	0.4	0.05	0.005	0.069	0.06	0.08	0.12	0.2
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-08/20/96	14	4.95	5.364	10.	3.2	3.595	1.896	3.45	3.95	5.775	9.35
00940 CHLORIDE,TOTAL IN WATER MG/L	05/26/74-12/15/98	27	14.	16.426	41.	2.5	96.321	9.814	6.	8.	24.	32.4
31616 FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/26/74-07/07/94	7	100.	421.429	1500.	50.	374047.619	611.594	**	**	**	**
31616 LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/26/74-07/07/94	7	2.	2.188	3.176	1.699	0.415	0.645	**	**	**	**
31616 GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			154.089								
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	27	0.06	0.068	0.14	0.01	0.001	0.028	0.038	0.05	0.08	0.102

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0011

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/26/74-12/15/98	46	22.7	21.674	31.3	6.	36.689	6.057	10.66	19.3	25.5	28.99
00070 TURBIDITY, (JACKSON CANDLE UNITS)	06/04/75-07/07/94	7	12.	13.114	22.	7.1	22.268	4.719	**	**	**	**
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	33	171.	175.242	278.	119.	1283.877	35.831	127.	152.5	200.	217.6
00300 OXYGEN, DISSOLVED MG/L	05/26/74-07/07/94	16	7.9	7.538	9.4	4.1	1.485	1.219	5.78	6.7	8.3	8.84
00310 BOD, 5 DAY, 20 DEG C MG/L	05/26/74-12/15/98	22	2.	1.95	5.	0.5	1.217	1.103	1.	3.	3.	3.07
00340 COD, .25N K2CR2O7 MG/L	06/04/75-12/15/98	29	10.	11.431	24.	2.	36.281	6.023	4.	7.	16.	20.
00400 PH (STANDARD UNITS)	05/26/74-12/15/98	47	7.5	7.544	8.38	7.03	0.114	0.337	7.108	7.3	7.8	8.
00400 CONVERTED PH (STANDARD UNITS)	05/26/74-12/15/98	47	7.5	7.436	8.38	7.03	0.125	0.354	7.108	7.3	7.8	8.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	47	0.032	0.037	0.093	0.004	0.001	0.023	0.01	0.016	0.05	0.078
00403 PH, LAB, STANDARD UNITS SU	05/26/74-12/15/98	17	7.3	7.253	7.8	6.7	0.133	0.364	6.7	6.9	7.5	7.8
00403 CONVERTED PH, LAB, STANDARD UNITS	05/26/74-12/15/98	17	7.3	7.117	7.8	6.7	0.152	0.39	6.7	6.9	7.5	7.8
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/26/74-12/15/98	17	0.05	0.076	0.2	0.016	0.004	0.06	0.016	0.032	0.126	0.2
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	05/26/74-12/15/98	17	45.	44.882	63.	28.	78.735	8.873	32.8	38.	50.	59.8
00500 RESIDUE, TOTAL (MG/L)	05/26/74-12/15/98	31	116.	121.484	183.	87.	576.791	24.016	90.6	100.	141.	153.
00505 RESIDUE, TOTAL VOLATILE (MG/L)	05/26/74-12/15/98	31	34.	38.516	98.	9.	360.725	18.993	17.	26.	44.	65.6
00510 RESIDUE, TOTAL FIXED (MG/L)	05/26/74-12/15/98	31	87.	82.968	119.	21.	555.699	23.573	47.2	68.	103.	109.6
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/26/74-12/15/98	32	20.5	21.031	43.	6.	91.838	9.583	7.9	12.5	26.	35.7
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/26/74-12/15/98	32	4.	4.25	9.	0.	5.306	2.304	0.65	3.	6.	7.7
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	05/26/74-12/15/98	32	16.5	16.781	35.	4.	71.273	8.442	6.3	9.	20.	30.8
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/26/74-12/15/98	32	0.105	0.142	0.35	0.02	0.008	0.089	0.05	0.075	0.2	0.3
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	32	0.01	0.016	0.04	0.005	0.	0.01	0.005	0.01	0.02	0.03
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	05/26/74-12/15/98	32	0.225	0.248	0.5	0.07	0.014	0.117	0.103	0.16	0.338	0.436
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/26/74-12/15/98	32	0.5	0.519	1.199	0.1	0.06	0.244	0.2	0.3	0.675	0.77
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/15/98	21	0.1	0.1	0.2	0.05	0.001	0.036	0.06	0.08	0.11	0.164
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-08/20/96	13	5.	4.931	8.	2.1	2.991	1.729	2.46	3.3	6.3	7.48
00940 CHLORIDE, TOTAL IN WATER MG/L	05/26/74-12/15/98	27	9.	9.796	30.	2.5	28.197	5.31	4.8	6.	12.	15.6
31616 FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/26/74-07/07/94	15	100.	183.333	1400.	50.	116666.667	341.565	50.	50.	200.	680.
31616 LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/26/74-07/07/94	15	2.	1.996	3.146	1.699	0.159	0.398	1.699	1.699	2.301	2.639
31616 GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			99.114								
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/26/74-12/15/98	27	0.05	0.045	0.08	0.02	0.	0.017	0.02	0.03	0.05	0.064

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0012

NPS Station ID: RICH0012

Location: JAMES RIVER AVOBE GRAVELLY RUN (HPA 1)

Station Type: /TYP/A MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: 02-NORTH ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

VIRGINIA STATE WATER CONTROL BOARD  
RIVER: JAMES RIVER

LAT/LON: 37.363059/ -77.267781

AMBIENT MONITORING  
SECTION: 02A

Depth of Water: 0  
Elevation: 0

RF1 Mile Point: 0.000  
RF3 Mile Point: 1.58

Agency: 21VASWCB

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): 2-JMS084.63

Within Park Boundary: No

Date Created: 10/16/93

On/Off RF1:  
On/Off RF3:

BASIN: 2- JAMES  
TOPO MAP #: 0138 TOPO MAP NAME: HOPEWELL, VA

### Parameter Inventory for Station: RICH0012

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	06/25/92-06/25/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01004 ARSENIC TOTAL IN FISH OR ANIMAL WET WT MG/KG	06/25/92-06/25/92	3 ##	0.125	0.125	0.125	0.	0.	0.	**	**	**	**
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/25/92-06/25/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/25/92-06/25/92	1	34.	34.	34.	34.	0.	0.	**	**	**	**
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	06/25/92-06/25/92	1	21.	21.	21.	21.	0.	0.	**	**	**	**
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	06/25/92-06/25/92	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/25/92-06/25/92	1	23.	23.	23.	23.	0.	0.	**	**	**	**
01069 NICKEL, TOTAL IN FISH OR ANIMALS-WET WEIGHT MG/KG	06/25/92-06/25/92	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01073 THALLIUM, TISSUE,WET WEIGHT, MG/KG	06/25/92-06/25/92	3 ##	1.	4.5	11.5	1.	36.75	6.062	**	**	**	**
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	06/25/92-06/25/92	1	94.	94.	94.	94.	0.	0.	**	**	**	**
01148 SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	06/25/92-06/25/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01149 SELENIUM, TOTAL IN FISH OR ANIMALS WET WGT MG/KG	06/25/92-06/25/92	3	0.45	0.433	0.57	0.28	0.021	0.146	**	**	**	**
34252 BERYLLIUM WET WGTTISMKG/KG	06/25/92-06/25/92	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34258 B-BHC-BETA, WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34263 DELTA BENZENE HEXACHLORIDE WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34360 ENDOSULFAN, BETA WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34365 ENDOSULFAN, ALPHA WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34664 PCB - 1221 WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34667 PCB - 1232 WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34669 PCB - 1248 WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34670 PCB - 1260 WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34674 PCB - 1016 WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34680 ALDRIN IN FISH TISSUE WET WEIGHT MG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34682 CHLORDANE(TECH MIX & METABS),TISSUEWET WGTT,MG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34685 ENDRIN WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34686 HEPTACHLOR EPOXIDE WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34687 HEPTACHLOR WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34688 HEXACHLOROBENZENE WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34689 PCB - 1242 WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34690 PCB - 1254 WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34691 TOXAPENE WET WGTTISMKG/KG	06/25/92-06/25/92	2 ##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
38744 CHLORPYRIFOS-METHYL TISWETWGTMKG/KG	06/25/92-06/25/92	2 ##	0.05	0.05	0.05	0.05	0.05	0.	**	**	**	**
39061 PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	06/25/92-06/25/92	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39069	CHLORDANE-NONACHLOR,CIS ISO, TISSUE WET WGT(UG/G)	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39072	CHLORDANE-NONACHLOR,TRANS ISO, TISSUE, WET WT,UG/G	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39074	BHC-ALPHA ISOMER, TISSUE UG/G WET WGT	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39105	PERCENT FAT HEXANE EXTRACTION	06/25/92-06/25/92	2	2.1	2.1	2.6	1.6	0.5	0.707	**	**	**	**
39290	DDT TOTAL IN TISSUE WET WGT BASIS (UG/G)	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	06/25/92-06/25/92	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/25/92-06/25/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/25/92-06/25/92	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39404	DIELDRIN IN TISSUE WET WGT (UG/G)	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	06/25/92-06/25/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39515	PCBS (MG/KG) FISH TISSUE MG/KG	06/25/92-06/25/92	2##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	06/25/92-06/25/92	1##	250.	250.	250.	250.	0.	0.	**	**	**	**
39785	GAMMA-BHC(LINDANE),TISSUE,WET WEIGHT, MG/KG	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
45651	PCB - 1262, TISSUE, WET WEIGHT MG/KG	06/25/92-06/25/92	2##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	06/25/92-06/25/92	1##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	06/25/92-06/25/92	3##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	3##	0.5	0.667	1.	0.5	0.083	0.289	**	**	**	**
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	3	2.	2.333	3.	2.	0.333	0.577	**	**	**	**
71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	3	8.	12.333	22.	7.	70.333	8.386	**	**	**	**
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	06/25/92-06/25/92	3##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71940	CADMUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	06/25/92-06/25/92	3##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	06/25/92-06/25/92	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	06/25/92-06/25/92	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	06/25/92-06/25/92	3	6.	5.667	6.	5.	0.333	0.577	**	**	**	**
81644	METHOXYCHLOR IN FISH TISSUE,UG/G WET WEIGHT	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
81645	MIREX IN FISH TISSUE WET WEIGHT UG/G	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
81742	SILVER IN FISH TISSUE WET WEIGHT (MG/KG)PPM	06/25/92-06/25/92	3##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
81823	PENTACHLOROANISOLE(PCP)INFISH TISSUE WET WGT MG/KG	06/25/92-06/25/92	2##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
81897	DDD TOTAL IN TISSUE WET WEIGHT MG/KG	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
82029	OXYCHLORDANE IN TISSUE SAMPLE WET WEIGHT MG/KG	06/25/92-06/25/92	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0013

NPS Station ID: RICH0013  
 Location: VIMS STATION J71 - JAMES RIVER  
 Station Type: /TYP/A/AMBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206  
 RF3 Index: 02080206004512.50  
 Description:

LAT/LON: 37.366670/ -77.250005

Agency: CHESBAY  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): XPA2050  
 Within Park Boundary: No

Date Created: 01/29/83

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 14.72

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.05

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0013

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0014

NPS Station ID: RICH0014  
 Location: VIMS STATION B54 - JAMES RIVER  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206045  
 RF3 Index: 02080206184600.00  
 Description:

LAT/LON: 37.368615/ -77.334171

Agency: CHESBAY  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): XPA2196  
 Within Park Boundary: No

Date Created: 01/29/83

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 5.620  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 17.20  
 Distance from RF3: 0.04

On/Off RF1: ON  
 On/Off RF3:

### Parameter Inventory for Station: RICH0014

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/19/64-08/11/71	419	26.9	26.66	32.	21.8	4.936	2.222	23.4	25.	28.2	29.4
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/19/64-08/19/64	2	20.	20.	20.	20.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/71-08/11/71	373	5.7	5.798	9.4	2.3	1.603	1.266	4.1	4.9	6.7	7.5

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0014

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	Other-Lo Lim.	4.	373	35	0.09	190	34	0.18		183	1	0.01						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0015

NPS Station ID: RICH0015  
 Location: DUTCH GAP, BUOY 150  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206045  
 RF3 Index: 02080206004503.92  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
 RIVER: JAMES RIVER SECTION: 02A TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.378115/ -77.353366

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-JMS094.96 /VA2-02AX0135/VA2-4X0135  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 6.510  
 RF3 Mile Point: 5.21

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.07

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0015

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	91	27.8	26.884	36.1	11.1	26.495	5.147	20.04	22.9	31.1	33.28
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-06/28/83	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	06/28/83-10/26/98	49	225.	242.49	470.	121.	6015.463	77.559	148.	183.	296.5	350.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	50	7.5	7.552	9.8	5.8	1.025	1.012	6.21	6.875	8.4	8.99
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	42	6.8	6.888	12.	3.4	2.701	1.643	4.93	6.	7.85	8.94
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	15	1.9	2.413	6.2	1.	1.981	1.408	1.24	1.6	2.8	5.48
00340	COD, 25N K2CR2O7 MG/L	06/28/83-06/28/83	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	93	7.46	7.457	8.42	6.2	0.135	0.367	7.008	7.2	7.675	7.98
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	93	7.46	7.295	8.42	6.2	0.161	0.402	7.008	7.2	7.675	7.98
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	93	0.035	0.051	0.631	0.004	0.005	0.069	0.01	0.021	0.063	0.098
00403	PH, LAB, STANDARD UNITS SU	03/20/69-05/26/74	6	7.15	7.033	7.3	6.5	0.103	0.32	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-05/26/74	6	7.147	6.922	7.3	6.5	0.117	0.343	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-05/26/74	6	0.071	0.12	0.316	0.05	0.011	0.105	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-05/26/74	6	40.	37.167	45.	24.	64.967	8.06	**	**	**	**
00480	SALINITY - PARTS PER THOUSAND	06/28/83-06/28/83	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	8	150.5	191.75	509.	86.	17321.071	131.61	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	8	46.	77.625	312.	21.	9145.125	95.63	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	8	117.	114.125	197.	32.	2056.696	45.351	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/28/83	22	17.5	18.682	45.	6.	87.465	9.352	7.3	10.75	24.	31.1
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/28/83	22	4.	5.227	14.	0.	12.946	3.598	1.3	3.	7.25	12.1
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	22	13.5	13.727	35.	2.	71.827	8.475	2.3	6.	19.25	25.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/19/69-06/28/83	36	0.26	0.277	0.6	0.05	0.018	0.136	0.1	0.193	0.385	0.479
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	36	0.02	0.028	0.18	0.005	0.001	0.034	0.005	0.006	0.04	0.076
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	36	0.385	0.405	1.159	0.07	0.062	0.25	0.094	0.2	0.555	0.732
00625	NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	06/19/69-06/28/83	36	0.6	0.712	1.599	0.2	0.148	0.384	0.3	0.4	1.	1.289
00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/28/83-06/28/83	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	06/28/83-06/28/83	1	0.05	0.05	0.05	0.05	0.05	0.	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	06/28/83-06/28/83	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-08/30/74	17	9.	8.176	15.	3.	10.529	3.245	3.8	5.	9.5	13.4
01002	ARSENIC, TOTAL (UG/L AS AS)	05/02/72-05/02/72	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-08/20/72	4##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-05/03/73	8 ##	5.	5.625	10.	5.	3.125	1.768	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0015

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-05/03/73	8 ##	5.	7.5	20.	5.	28.571	5.345	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	05/02/72-10/04/72	5 ##	5.	6.	10.	5.	5.	2.236	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	1	70.	70.	70.	0.	0.	**	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/03/73	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-05/03/73	8 ##	5.	7.5	20.	5.	28.571	5.345	**	**	**	**
31505	COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/22/68-09/09/70	13	1500.	7891.923	43000.	36.	158561714.077	12592.129	37.2	430.	11000.	35000.
31505	LOG COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/22/68-09/09/70	13	3.176	3.186	4.633	1.556	0.976	0.988	1.57	2.633	4.041	4.525
31505	GM COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)				GEOMETRIC MEAN =	1533.775							
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	07/14/94-10/26/98	51	130.	1588.353	16000.	9.	18695104.353	4323.784	20.	20.	490.	4800.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	07/14/94-10/26/98	51	2.114	2.219	4.204	0.954	0.739	0.86	1.301	1.301	2.69	3.662
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)				GEOMETRIC MEAN =	165.725							
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	29	100.	2829.31	54000.	50.	99827592.365	9991.376	50.	50.	1250.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	29	2.	2.477	4.732	1.699	0.726	0.852	1.699	1.699	3.088	3.778
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	299.577							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-08/30/74	34 ##	0.05	0.087	0.3	0.05	0.003	0.058	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	04/21/70-08/30/74	34	0.05	0.055	0.1	0.01	0.001	0.023	0.03	0.04	0.07	0.1
71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-05/03/73	7 ##	0.25	0.479	1.6	0.25	0.253	0.503	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0015

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00			
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	42	2	0.05	25	1	0.04	1	0	0.00	16	1	0.06			
00400	PH	Fresh Chronic	9.	93	0	0.00	56	0	0.00	6	0	0.00	31	0	0.00			
		Other-Lo Lim.	6.5	93	1	0.01	56	0	0.00	6	0	0.00	31	1	0.03			
00403	PH, LAB	Fresh Chronic	9.	6	0	0.00	1	0	0.00				5	0	0.00			
		Other-Lo Lim.	6.5	6	1	0.17	1	0	0.00				5	1	0.20			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	36	0	0.00	20	0	0.00	1	0	0.00	15	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	36	0	0.00	20	0	0.00	1	0	0.00	15	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	17	0	0.00	10	0	0.00				7	0	0.00			
		Drinking Water	250.	17	0	0.00	10	0	0.00				7	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	8	0	0.00	4	0	0.00				4	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	8	1	0.13	4	0	0.00				4	1	0.25			
		Drinking Water	1300.	8	0	0.00	4	0	0.00				4	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	5	0	0.00	4	0	0.00				1	0	0.00			
		Drinking Water	15.	5	0	0.00	4	0	0.00				1	0	0.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	8	0	0.00	4	0	0.00				4	0	0.00			
		Drinking Water	5000.	8	0	0.00	4	0	0.00				4	0	0.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	13	7	0.54	8	3	0.38				5	4	0.80			
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	51	22	0.43	32	12	0.38	5	3	0.60	14	7	0.50			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	29	14	0.48	17	9	0.53	1	1	1.00	11	4	0.36			
71900	MERCURY, TOTAL	Fresh Acute	2.4	7	0	0.00	5	0	0.00				2	0	0.00			
		Drinking Water	2.	7	0	0.00	5	0	0.00				2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0015

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	25	6.4	6.616	10.	3.8	1.736	1.318	5.	5.8	7.3	8.52
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/28/83	11	18.	18.	32.	6.	68.8	8.295	6.8	10.	24.	31.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/28/83	11	4.	4.545	13.	0.	11.673	3.417	0.4	2.	6.	11.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	11	15.	14.	25.	2.	52.8	7.266	2.8	7.	20.	24.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/19/69-06/28/83	20	0.305	0.299	0.5	0.05	0.016	0.125	0.15	0.2	0.398	0.495
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	20	0.025	0.038	0.18	0.005	0.002	0.04	0.005	0.013	0.04	0.088
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	20	0.43	0.462	1.159	0.08	0.082	0.286	0.082	0.265	0.613	0.94
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	06/19/69-06/28/83	20	0.7	0.74	1.599	0.2	0.122	0.35	0.31	0.5	1.	1.199
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	17	200.	841.176	6000.	50.	2115386.029	1454.437	50.	50.	1000.	2800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	17	2.301	2.426	3.778	1.699	0.493	0.702	1.699	1.699	3.	3.396
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		266.918							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0015

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	1	8.6	8.6	8.6	8.6	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/19/69-06/28/83	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	1	0.19	0.19	0.19	0.19	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	06/19/69-06/28/83	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	1	5100.	5100.	5100.	5100.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	1	3.708	3.708	3.708	3.708	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		5100.							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0015

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	16	7.2	7.206	12.	3.4	4.178	2.044	4.1	6.125	8.525	10.04
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/28/83	11	17.	19.364	45.	7.	113.855	10.67	7.2	11.	23.	41.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/28/83	11	5.	5.909	14.	1.	14.491	3.807	1.4	3.	8.	13.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	11	13.	13.455	35.	2.	97.873	9.893	2.2	6.	15.	33.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/19/69-06/28/83	15	0.24	0.26	0.6	0.1	0.021	0.146	0.1	0.1	0.3	0.522
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	15	0.01	0.017	0.09	0.	0.005	0.	0.022	0.005	0.02	0.054
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	06/19/69-06/28/83	15	0.34	0.343	0.72	0.07	0.032	0.18	0.1	0.19	0.49	0.612
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	06/19/69-06/28/83	15	0.5	0.689	1.599	0.2	0.199	0.446	0.26	0.4	1.039	1.54
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	11	100.	5695.455	54000.	50.	259861227.273	16120.212	50.	50.	1800.	44400.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	11	2.	2.442	4.732	1.699	1.087	1.043	1.699	1.699	3.255	4.542
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		276.736							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0016

NPS Station ID: RICH0016  
 Location: JAMES RIVER, DUTCH GAP BUOY 150  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206045  
 RF3 Index: 02080206168802.83  
 Description:

LAT/LON: 37.378115/ -77.353366

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): XPL2712  
 Within Park Boundary: No

Date Created: 11/08/80

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 6.510

RF3 Mile Point: 3.44

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 13.30

Distance from RF3: 0.07

On/Off RF1: OFF

On/Off RF3:

CHESAPEAKE BAY PROGRAM TISSUE AND SEDIMENT DATA ALL DATA FROM VIRGINIA STATE WATER CONTROL BOARD UNLESS OTHERWISE DESIGNATED  
 SPECIAL STUDY 70-040 DES LAB SHEETS 3946-3949,3952,3956-3965 APR-AUG 1971/

## Parameter Inventory for Station: RICH0016

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/27/71-04/27/71	16 ##	0.235	0.211	0.385	0.035	0.011	0.105	0.039	0.138	0.283	0.336
71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	16	0.075	0.09	0.22	0.03	0.003	0.052	0.03	0.06	0.11	0.178
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	16	1.13	2.172	9.86	0.24	6.056	2.461	0.604	0.847	2.56	6.815
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	16	5.565	6.24	11.4	3.08	5.613	2.369	3.409	4.145	7.762	9.881
71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	16	98.5	101.413	131.7	64.	307.54	17.537	73.8	91.5	112.8	130.65
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	16	2.65	2.959	7.69	0.78	2.748	1.658	1.004	2.125	3.29	5.639
71940	CADMUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	16	1.18	1.466	4.09	0.16	1.116	1.056	0.216	0.823	1.888	3.411
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/27/71-04/27/71	16	1.	1.	1.	1.	1.	0.	0.	1.	1.	1.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0017

NPS Station ID: RICH0017  
 Location: JAMES RIVER, BUOY 147 (OLD BUOY 145)

LAT/LON: 37.379170/ -77.323059

Station Type: /TYPAB/AMBN/T/STREAM  
 RMI-Indexes:  
 RMI-Miles:

HUC: 02080206

Depth of Water: 0

Major Basin: 02-NORTH ATLANTIC

Elevation: 0

Minor Basin: 2-JAMES

RF1 Mile Point: 0.000

RF1 Index: 02080206

RF3 Mile Point: 1.58

RF3 Index: 02080206000501.22

Description:

VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 02A TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

Date Created: 06/25/94

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-JMS093.21  
 Within Park Boundary: No

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	51	26.8	26.229	34.1	16.5	22.941	4.79	19.1	22.5	30.5	32.38
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	47	227.	243.319	473.	123.	5921.005	76.948	150.	182.	305.	349.8
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	50	7.5	7.628	9.6	5.6	1.278	1.13	6.1	6.875	8.6	9.4
00400	PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.48	7.529	8.56	6.85	0.139	0.372	7.124	7.23	7.77	7.948
00400	CONVERTED PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.48	7.399	8.56	6.85	0.156	0.395	7.124	7.23	7.77	7.948
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/14/94-10/26/98	51	0.033	0.04	0.141	0.003	0.001	0.029	0.011	0.017	0.059	0.075
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	73.	1457.981	16000.	2.	18136485.274	4258.695	9.	20.	430.	1700.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	1.862	2.036	4.204	0.301	0.869	0.932	0.954	1.301	2.63	3.23
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	108.518								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0017

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14	10/15-3/15	3/16-6/30	n/a
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00
00400	PH	Fresh Chronic	9.	51	0	0.00	31	0	0.00
		Other-Lo Lim.	6.5	51	0	0.00	31	0	0.00
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	52	19	0.37	32	10	0.31

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	68.	120.875	460.	9.	23590.411	153.592	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	1.833	1.768	2.663	0.954	0.359	0.599	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		58.602									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	110.	3751.556	16000.	9.	48416035.528	6958.163	9.	30.	8700.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	2.041	2.361	4.204	0.954	1.467	1.211	0.954	1.452	3.675	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		229.817									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	285.	2946.417	16000.	2.	37401879.538	6115.708	7.4	20.	1397.5	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	2.352	2.298	4.204	0.301	1.457	1.207	0.601	1.301	3.095	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		198.784									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	110.	235.091	1300.	9.	137024.091	370.168	9.	18.	230.	1106.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	2.041	1.931	3.114	0.954	0.507	0.712	0.954	1.255	2.362	2.995
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		85.398									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	45.	261.75	1700.	9.	256569.477	506.527	9.	20.	274.5	1427.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	1.653	1.802	3.23	0.954	0.53	0.728	0.954	1.301	2.372	3.131
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		63.386									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0018

NPS Station ID: RICH0018  
 Location: BELOW HATCHER ISLAND R"150" J06  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206045  
 RF3 Index: 02080206004600.54  
 Description:

LAT/LON: 37.379170/ -77.348615

Agency: 1113JAWQ  
 FIPS State/County: 51000 VIRGINIA/  
 STORET Station ID(s): JAMES J06 /J06 /J6  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 1  
 Elevation: 0  
 RF1 Mile Point: 6.380  
 RF3 Mile Point: 2.62

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.02

On/Off RF1: ON  
 On/Off RF3:

## Parameter Inventory for Station: RICH0018

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/27/68-11/04/71	21	25.6	23.205	28.9	7.8	26.072	5.106	14.96	21.05	26.7	27.68
00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/11/71-07/23/71	4	12.	11.375	12.5	9.	2.563	1.601	**	**	**	**
00077	TRANSPARENCY, SECCHI DISC (INCHES)	10/19/71-11/04/71	4	21.	21.	24.	18.	6.667	2.582	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/27/68-11/02/71	20	7.7	7.87	12.	5.7	2.098	1.448	6.41	6.925	8.75	9.92
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-11/04/71	9	1.8	1.556	2.9	0.2	0.623	0.789	0.2	0.9	1.9	2.9
00400	PH (STANDARD UNITS)	07/27/68-11/02/71	19	8.1	8.095	9.	6.5	0.487	0.698	6.7	7.8	8.7	8.8
00400	CONVERTED PH (STANDARD UNITS)	07/27/68-11/02/71	19	8.1	7.442	9.	6.5	0.937	0.968	6.7	7.8	8.7	8.8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/27/68-11/02/71	19	0.008	0.036	0.316	0.001	0.007	0.082	0.002	0.002	0.016	0.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/69-11/04/71	18	0.23	0.341	1.5	0.04	0.122	0.349	0.053	0.108	0.442	0.78
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-11/04/71	19	0.59	0.644	1.42	0.1	0.125	0.353	0.2	0.3	0.942	1.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/20/69-11/04/71	19	0.4	0.408	0.8	0.02	0.064	0.252	0.02	0.14	0.64	0.7
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/21/70-11/04/71	16	0.1	0.158	0.47	0.05	0.017	0.13	0.05	0.063	0.238	0.4
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	03/20/69-11/04/71	19	0.03	0.075	0.28	0.01	0.008	0.09	0.01	0.02	0.07	0.26
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	10/21/71-11/04/71	4	5.2	6.8	12.8	4.	16.347	4.043	**	**	**	**
00690	CARBON, TOTAL (MG/L AS C)	10/21/71-11/04/71	4	11.9	13.45	19.	11.	13.877	3.725	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-05/05/70	1	1272.	1272.	1272.	1272.	0.	0.	**	**	**	**
31505	COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/27/68-11/04/71	24	91.	43011.917	240000.	30.	8158297567.123	90323.295	30.	36.	23525.	240000.
31505	LOG COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/27/68-11/04/71	24	1.959	2.747	5.38	1.477	2.282	1.51	1.477	1.556	4.371	5.38
31505	GM COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)				558.263								
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	05/11/71-11/04/71	9	700.	27711.111	240000.	100.	6339456111.111	79620.702	100.	100.	3500.	240000.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	05/11/71-11/04/71	9	2.845	2.936	5.38	2.	1.282	1.132	2.	2.	3.543	5.38
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)				863.413								
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/02/71-11/02/71	1	240000.	240000.	240000.	240000.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/02/71-11/02/71	1	5.38	5.38	5.38	5.38	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				240000.								
32210	CHLOROPHYLL-A UG/L TRICROMATIC UNCORRECTED	10/19/71-11/02/71	3	8.3	6.3	8.3	2.3	12.	3.464	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0018

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14	10/15-3/15	3/16-6/30	n/a						
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	4	0	0.00	2	0	0	0	0.00	2	0	0.00	
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	0	0.00	10	0	0.00	3	0	0.00	7	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0018

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00400	PH	Fresh Chronic	9.	19	1	0.05	10	1	0.10	2	0	0.00	7	0	0.00			
		Other-Lo Lim.	6.5	19	1	0.05	10	0	0.00	2	1	0.50	7	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	19	0	0.00	8	0	0.00	4	0	0.00	7	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	1	1	1.00							1	1	1.00			
		Drinking Water	250.	1	1	1.00							1	1	1.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	24	7	0.29	10	0	0.00	7	7	1.00	7	0	0.00			
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	9	5	0.56	3	1	0.33	4	4	1.00	2	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	1	1.00				1	1	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0019

NPS Station ID: RICH0019  
 Location: RT. 1 BRIDGE  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080207008003.51  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: PROCTORS CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.380698/ -77.422503

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-PCT002.46 /VA2-07-X0187/VA2-4X0187  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 3.57

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 12.40  
 Distance from RF3: 0.01

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0019

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	221	15.4	14.901	31.	0.5	54.885	7.408	4.42	8.95	21.1	24.48
00061 FLOW, STREAM, INSTANTANEOUS CFS	04/21/82-03/28/85	13	8.	10.	28.	1.	92.5	9.618	1.	2.5	17.5	26.8
00070 TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-06/20/90	22	20.	30.923	182.	3.	1387.49	37.249	8.39	13.725	33.	68.6
00091 FLOW, MINIMUM OF FLOW RANGE CFS	05/18/82-05/18/82	1	58.	58.	58.	58.	0.	0.	**	**	**	**
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	104	58.5	65.058	517.	36.	2435.938	49.355	41.5	47.	67.	76.5
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	8	64.	67.25	78.	61.	45.071	6.714	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	219	9.2	9.477	15.	0.8	4.473	2.115	7.	8.	10.9	12.2
00310 BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	161	2.	2.051	25.	0.5	4.893	2.212	1.	1.	2.	3.72
00340 COD, 25N K2CR207 MG/L	08/15/79-06/20/90	113	22.	22.628	48.	2.	63.825	7.989	11.4	18.	28.	32.6
00400 PH (STANDARD UNITS)	06/28/68-06/20/90	222	6.5	6.549	8.9	4.8	0.355	0.596	5.93	6.1	7.	7.3
00400 CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	222	6.5	6.146	8.9	4.8	0.518	0.72	5.93	6.1	7.	7.3
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	222	0.316	0.714	15.849	0.001	2.698	1.643	0.05	0.1	0.794	1.181
00403 PH, LAB, STANDARD UNITS SU	10/24/68-06/20/90	30	6.1	6.123	7.1	4.8	0.288	0.537	5.5	5.675	6.5	6.8
00403 CONVERTED PH, LAB, STANDARD UNITS	10/24/68-06/20/90	30	6.1	5.782	7.1	4.8	0.409	0.639	5.5	5.675	6.5	6.8
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-06/20/90	30	0.794	1.654	15.849	0.079	8.592	2.931	0.158	0.316	2.124	3.162
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-06/20/90	30	6.5	7.033	24.	2.	21.62	4.65	2.	3.	9.25	11.
00500 RESIDUE, TOTAL (MG/L)	10/24/68-06/20/90	30	75.	94.433	532.	45.	7181.771	84.745	55.9	67.75	90.	116.7
00505 RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-06/20/90	30	32.	34.133	80.	15.	253.637	15.926	19.	21.75	43.5	49.6
00510 RESIDUE, TOTAL FIXED (MG/L)	04/28/69-06/20/90	28	44.	60.25	452.	3.	6194.12	78.703	23.9	33.75	56.75	74.7
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	160	8.	13.016	248.	0.5	604.435	24.585	2.5	3.	12.75	23.8
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	160	3.	4.697	38.	0.	25.875	5.087	1.1	2.5	6.	9.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	160	4.	9.178	210.	0.	442.677	21.04	1.1	2.5	8.	16.8
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	178 ##	0.05	0.117	1.	0.01	0.019	0.139	0.05	0.05	0.1	0.3
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	180 ##	0.005	0.024	1.599	0.005	0.015	0.121	0.005	0.005	0.01	0.039
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	167	0.2	0.327	2.409	0.005	0.156	0.394	0.07	0.13	0.32	0.7
00625 NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	178	0.5	0.634	3.	0.05	0.232	0.482	0.2	0.3	0.8	1.21
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	13	0.13	0.29	0.9	0.025	0.079	0.282	0.051	0.11	0.53	0.82
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	107	0.1	0.117	0.7	0.05	0.012	0.111	0.05	0.05	0.1	0.2
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	109	0.04	0.063	0.55	0.005	0.005	0.074	0.01	0.02	0.06	0.15
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	148	10.	10.682	25.	1.	20.169	4.491	5.96	7.025	14.	17.1
00900 HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-06/20/90	18	17.	17.167	30.	12.	18.382	4.287	12.	14.	18.	22.8
00940 CHLORIDE, TOTAL IN WATER MG/L	06/22/75-06/20/90	19	9.	10.421	34.	6.	37.702	6.14	7.	7.	11.	15
00945 SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	17	6.	6.941	17.	4.	11.684	3.418	4.	4.	8.5	12.2

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0019

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00951 FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	18 ##	0.05	0.064	0.15	0.05	0.001	0.03	0.05	0.05	0.063	0.114
00955 SILICA, DISSOLVED (MG/L AS SI02)	04/19/89-06/20/90	15	9.7	9.66	13.6	6.1	4.19	2.047	6.46	8.7	10.8	12.46
01002 ARSENIC, TOTAL (UG/L AS AS)	03/15/71-03/28/85	10 ##	1.75	1.65	2.5	0.5	0.836	0.914	0.5	0.875	2.5	2.5
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	2 ##	2.263	2.263	4.2	0.325	7.508	2.74	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	11/23/70-03/28/85	12 ##	5.	4.292	10.	0.5	7.248	2.692	0.5	1.625	5.	8.5
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	2 ##	0.058	0.058	0.065	0.05	0.	0.011	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	2	3.675	3.675	5.75	1.6	8.611	2.934	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	07/15/69-03/28/85	21 ##	5.	6.929	20.	0.5	15.857	3.982	5.	5.	10.	10.
01042 COPPER, TOTAL (UG/L AS CU)	07/15/69-03/28/85	20 ##	5.	7.5	30.	5.	40.789	6.387	5.	5.	5.	19.
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	2	2.97	2.97	5.04	0.9	8.57	2.927	**	**	**	**
01045 IRON, TOTAL (UG/L AS FE)	07/15/69-04/28/71	4	1429.	1446.75	2029.	900.	285460.25	534.285	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	06/29/70-03/28/85	18 ##	5.	7.472	30.	0.5	50.22	7.087	1.4	5.	10.	21.
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	2 ##	29.025	29.025	57.4	0.65	1610.281	40.128	**	**	**	**
01055 MANGANESE, TOTAL (UG/L AS MN)	03/24/70-04/28/71	3	60.	56.667	60.	50.	33.333	5.774	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	6 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	2 ##	1.025	1.025	1.4	0.65	0.281	0.53	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	07/15/69-03/28/85	21	10.	16.905	50.	5.	198.69	14.096	5.	5.	25.	46.
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	2	14.65	14.65	25.2	4.1	222.605	14.92	**	**	**	**
31505 COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/28/68-10/27/70	15	11000.	99452.667	1100000.	230.80259073506.667	283300.324	350.	2100.	43000.	584000.	
31505 LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150)	06/28/68-10/27/70	15	4.041	3.934	6.041	2.362	0.978	0.989	2.525	3.322	4.633	5.645
31505 GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	GEOMETRIC MEAN =		8581.719									
31616 FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	197	100.	979.695	80000.	50.	33695912.152	5804.818	50.	50.	500.	1600.
31616 LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	197	2.	2.254	4.903	1.699	0.399	0.632	1.699	1.699	2.699	3.204
31616 GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		179.54									
34259 DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351 ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356 ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361 ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366 ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34671 PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442 DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451 DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745 2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39062 CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065 CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068 CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071 CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300 P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39305 O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310 P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39315 O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320 P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39327 ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330 ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39333 ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39337 ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338 BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340 GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350 CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380 DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39390 ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39400 TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39410 HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39488 PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492 PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496 PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500 PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508 PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516 PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	71	0.2	0.465	4.	0.04	0.442	0.665	0.05	0.05	0.6	1.44
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	71	0.12	0.375	3.	0.005	0.292	0.54	0.012	0.07	0.4	1.
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-03/28/85	19##	0.25	0.239	0.25	0.15	0.001	0.032	0.15	0.25	0.25	0.25
71921	MERCURY,TOT, IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	2##	0.063	0.063	0.1	0.025	0.003	0.053	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0019

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Prop.	Obs	Prop.	Obs	Prop.	Obs	Prop.		
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	22	2	0.09	4	0	0.00	6	2	0.33	12	0	0.00
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	219	2	0.01	64	2	0.03	86	0	0.00	69	0	0.00
00400	PH	Fresh Chronic	9.	222	0	0.00	64	0	0.00	86	0	0.00	72	0	0.00
00403	PH, LAB	Fresh-Lo Lim.	6.5	222	128	0.58	64	37	0.58	86	48	0.56	72	43	0.60
00615	NITRITE NITROGEN, TOTAL AS N	Fresh Chronic	9.	30	0	0.00	5	0	0.00	11	0	0.00	14	0	0.00
00620	NITRATE NITROGEN, TOTAL AS N	Other-Lo Lim.	6.5	30	24	0.80	5	3	0.60	11	8	0.73	14	13	0.93
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	1.	180	1	0.01	47	1	0.02	74	0	0.00	59	0	0.00
00940	CHLORIDE, TOTAL IN WATER	Drinking Water	10.	167	0	0.00	45	0	0.00	70	0	0.00	52	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	10.	13	0	0.00	2	0	0.00	4	0	0.00	7	0	0.00
00951	FLUORIDE, TOTAL AS F	Fresh Acute	860.	19	0	0.00	1	0	0.00	8	0	0.00	10	0	0.00
01002	ARSENIC, TOTAL	Drinking Water	250.	19	0	0.00	1	0	0.00	8	0	0.00	10	0	0.00
01027	CADMIUM, TOTAL	Drinking Water	250.	17	0	0.00	1	0	0.00	7	0	0.00	9	0	0.00
01034	CHROMIUM, TOTAL	Fresh Acute	360.	10	0	0.00	2	0	0.00	1	0	0.00	7	0	0.00
01042	COPPER, TOTAL	Drinking Water	50.	10	0	0.00	2	0	0.00	1	0	0.00	7	0	0.00
01051	LEAD, TOTAL	Fresh Acute	3.9	4 &	1	0.25	1	0	0.00		3	1	0.33		
01065	NICKEL, DISSOLVED	Drinking Water	5.	4 &	1	0.25	1	0	0.00		3	1	0.33		
01067	NICKEL, TOTAL	Drinking Water	100.	21	0	0.00	4	0	0.00	6	0	0.00	11	0	0.00
01092	ZINC, TOTAL	Fresh Acute	18.	20	2	0.10	4	1	0.25	6	1	0.17	10	0	0.00
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Drinking Water	1300.	20	0	0.00	4	0	0.00	6	0	0.00	10	0	0.00
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	1000.	15	12	0.80	7	7	1.00	3	2	0.67	5	3	0.60
34356	ENDOSULFAN, BETA, TOTAL	Other-Hi Lim.	200.	197	89	0.45	54	37	0.69	82	27	0.33	61	25	0.41
34361	ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1	0	0.00					1	0	0.00		
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39300	P,P' DDT IN WHOLE WATER SAMPLE	Drinking Water	1.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39310	P,P' DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39320	P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	4	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00
39340	GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00					1	0	0.00		
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATE	Drinking Water	0.2	1	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
		Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00			
		Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0019

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
39390 ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
	Drinking Water	2.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	1	0	0.00							1	0	0.00			
	Drinking Water	3.	1	0	0.00							1	0	0.00			
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
	Drinking Water	0.4	1	0	0.00							1	0	0.00			
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
	Drinking Water	0.2	1	0	0.00							1	0	0.00			
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00						
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	1	0	0.00							1	0	0.00			
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00						
39730 2,4-D IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00							1	0	0.00			
39760 SILVEX IN WHOLE WATER SAMPLE	Drinking Water	50.	1	0	0.00							1	0	0.00			
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00									
71900 MERCURY, TOTAL	Fresh Acute	2.4	19	0	0.00	4	0	0.00	7	0	0.00	8	0	0.00			
	Drinking Water	2.	19	0	0.00	4	0	0.00	7	0	0.00	8	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1968 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	5	25.6	24.56	27.8	18.3	15.713	3.964	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	5	7.5	7.7	10.	6.5	1.825	1.351	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	1	4.6	4.6	4.6	4.6	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	5	6.3	6.52	7.3	6.	0.357	0.597	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	5	6.3	6.276	7.3	6.	0.432	0.657	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	5	0.501	0.53	1.	0.05	0.214	0.463	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	1	6.	6.	6.	6.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	4	20.	18.2	26.1	6.7	70.273	8.383	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	4	8.5	8.8	11.2	7.	3.227	1.796	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	4	2.25	2.625	5.1	0.9	3.129	1.769	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	4	6.15	6.225	6.8	5.8	0.256	0.506	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	4	6.022	6.04	6.8	5.8	0.301	0.549	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	4	0.951	0.911	1.585	0.158	0.609	0.781	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	2	14.	14.	18.	10.	32.	5.657	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	3	3.	4.333	7.	3.	5.333	2.309	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	2	9.	9.	11.	7.	8.	2.828	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	11	14.4	13.364	22.2	4.4	43.251	6.577	4.52	6.1	20.	21.98
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	11	9.2	8.682	12.	0.8	9.262	3.043	2.04	7.6	11.2	11.86
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	6	2.25	6.017	25.	0.9	87.462	9.352	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	11	6.3	6.255	7.	5.5	0.297	0.545	5.52	5.8	6.7	7.
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	11	6.3	5.988	7.	5.5	0.375	0.612	5.52	5.8	6.7	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	11	0.501	1.028	3.162	0.1	1.117	1.057	0.1	0.2	1.585	3.032
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	5	12.	19.2	50.	9.	299.7	17.312	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	5	6.	12.6	38.	5.	202.8	14.241	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	5	5.	6.6	12.	4.	11.8	3.435	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	5	0.3	0.356	1.	0.07	0.141	0.375	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	5##	0.005	0.011	0.03	0.005	0.	0.011	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	5	0.15	0.148	0.22	0.07	0.004	0.064	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	5	0.8	0.9	2.	0.3	0.435	0.66	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	2	40100.	40100.	80000.	200.	3184020000.	56427.121	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	2	3.602	3.602	4.903	2.301	3.385	1.84	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			4000.									
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	5	0.1	0.258	0.9	0.04	0.13	0.361	**	**	**	**
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	5	0.1	0.292	0.85	0.05	0.118	0.344	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	11	17.8	15.764	26.1	2.8	67.029	8.187	3.02	7.8	23.3	25.54
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	12	8.6	9.158	11.9	7.2	2.239	1.496	7.38	8.	10.45	11.75
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.35	6.392	7.	5.9	0.154	0.392	5.9	6.	6.8	6.94
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.347	6.246	7.	5.9	0.177	0.42	5.9	6.	6.8	6.94
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	12	0.45	0.568	1.259	0.1	0.196	0.442	0.118	0.158	1.	1.259
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	12 ##	50.	1212.5	10000.	50.	8065056.818	2839.904	50.	50.	875.	7660.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	12 ##	1.699	2.303	4.	1.699	0.665	0.815	1.699	1.699	2.925	3.803
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		200.8							

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### Annual Analysis for 1972 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	10	12.2	13.59	24.4	3.3	53.974	7.347	3.41	6.95	21.1	24.07
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	9	9.6	9.289	11.	6.2	3.021	1.738	6.2	7.8	10.8	11.
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.55	6.56	7.5	5.8	0.252	0.502	5.83	6.175	7.	7.45
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.547	6.341	7.5	5.8	0.305	0.552	5.83	6.175	7.	7.45
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	10	0.284	0.456	1.585	0.032	0.218	0.466	0.038	0.1	0.672	1.506
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	1	0.19	0.19	0.19	0.19	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10	150.	310.	1100.	50.	146555.556	382.826	50.	50.	525.	1080.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10	2.151	2.2	3.041	1.699	0.278	0.527	1.699	1.699	2.69	3.033
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		158.33							
70505	PHOSPHATE, TOTAL,COLORIMETRIC MÉTHOD (MG/L AS P)	02/09/70-06/21/79	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	11	13.3	13.782	22.8	2.2	60.218	7.76	2.42	5.	21.1	22.46
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	12	8.9	9.325	13.6	7.	4.726	2.174	7.03	7.55	10.45	13.42
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.1	6.158	6.5	5.7	0.068	0.261	5.76	6.	6.45	6.5
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.1	6.088	6.5	5.7	0.073	0.271	5.76	6.	6.45	6.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	12	0.794	0.816	1.995	0.316	0.24	0.49	0.316	0.362	1.	1.774
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	12	0.15	0.184	0.4	0.05	0.016	0.128	0.05	0.078	0.285	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	12 ##	0.008	0.01	0.04	0.005	0.	0.01	0.005	0.005	0.01	0.031
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	12	0.28	0.444	1.409	0.15	0.14	0.374	0.156	0.183	0.658	1.226
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	12	0.9	1.	1.799	0.6	0.141	0.376	0.6	0.65	1.299	1.679
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	12 ##	75.	150.	600.	50.	28636.364	169.223	50.	50.	250.	510.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	12 ##	1.849	1.994	2.778	1.699	0.146	0.382	1.699	1.699	2.358	2.688
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		98.594							
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	12	0.3	0.454	1.2	0.05	0.144	0.38	0.065	0.2	0.8	1.14
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	12	0.3	0.382	1.	0.09	0.089	0.299	0.105	0.163	0.55	0.97

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	9	10.	13.144	22.8	4.4	45.07	6.713	4.4	8.35	20.55	22.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	9	9.	8.978	12.	5.8	4.314	2.077	5.8	7.3	10.9	12.
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	9	6.5	6.433	7.	6.	0.09	0.3	6.	6.2	6.5	7.
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	9	6.5	6.344	7.	6.	0.099	0.315	6.	6.2	6.5	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	9	0.316	0.453	1.	0.1	0.102	0.32	0.1	0.316	0.699	1.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	9	0.3	0.278	0.5	0.1	0.019	0.139	0.1	0.15	0.4	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.005	0.014	0.04	0.005	0.	0.013	0.005	0.005	0.023	0.039
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.28	0.594	1.759	0.13	0.392	0.626	0.132	0.15	0.96	1.751
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	1.149	1.15	2.	0.4	0.192	0.438	0.43	0.85	1.349	1.95
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	10 ##	50.	280.	1600.	50.	235666.667	485.455	50.	50.	400.	1480.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	10 ##	1.699	2.06	3.204	1.699	0.298	0.546	1.699	1.699	2.602	3.144
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	114.87								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	10	0.55	0.68	2.2	0.1	0.42	0.648	0.1	0.175	1.025	2.09
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	10	0.25	0.565	2.199	0.05	0.478	0.692	0.055	0.1	1.025	2.089

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### Annual Analysis for 1975 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	12	14.4	13.983	21.1	5.	25.256	5.026	6.17	9.325	18.35	20.95
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	12	9.8	9.392	11.4	6.6	2.604	1.614	6.66	8.25	10.875	11.28
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	9	2.	2.667	6.	1.	2.25	1.5	1.	2.	3.5	6.
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.5	6.275	7.3	5.	0.48	0.693	5.	6.	6.5	7.21
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.5	5.698	7.3	5.	0.843	0.918	5.	6.	6.5	7.21
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	12	0.316	2.004	10.	0.05	14.038	3.747	0.065	0.316	1.	10.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	7	6.	11.143	32.	2.	142.476	11.936	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	7	4.	6.286	16.	2.	31.238	5.589	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	7	2.	4.857	20.	0.	51.81	7.198	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.25	0.245	0.5	0.05	0.027	0.164	0.055	0.1	0.35	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.008	0.02	0.08	0.005	0.001	0.025	0.005	0.005	0.028	0.077
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.26	0.381	1.419	0.025	0.16	0.4	0.038	0.18	0.44	1.342
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	0.75	0.89	2.199	0.4	0.287	0.536	0.41	0.5	1.199	2.099
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	9	15.	16.111	25.	12.	16.361	4.045	12.	13.	18.	25.
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	11 ##	50.	395.455	3700.	50.	1201727.273	1096.233	50.	50.	100.	2980.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	11 ##	1.699	1.951	3.568	1.699	0.307	0.554	1.699	1.699	2.	3.255
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	89.33								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	10	0.2	0.34	1.5	0.05	0.178	0.422	0.05	0.163	0.325	1.39
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	10	0.17	0.254	1.	0.05	0.08	0.282	0.052	0.093	0.308	0.939

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### Annual Analysis for 1976 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	8	18.9	18.275	30.	3.9	66.611	8.162	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	8	7.65	8.338	10.8	7.	2.186	1.478	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	6	4.	4.333	7.	2.	3.467	1.862	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	8	6.95	6.875	7.1	6.5	0.039	0.198	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	8	6.947	6.831	7.1	6.5	0.041	0.204	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	8	0.113	0.147	0.316	0.079	0.006	0.079	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	8	8.	8.875	28.	0.5	78.625	8.867	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	8	3.	3.375	10.	0.	11.625	3.41	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	8	4.	5.625	18.	0.	40.482	6.363	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	8	0.2	0.294	0.7	0.05	0.055	0.234	**	**	**	**

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### Annual Analysis for 1976 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	8	0.095	0.263	1.599	0.005	0.295	0.543	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	8	0.795	1.078	2.409	0.07	0.842	0.918	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	8	1.299	1.362	2.899	0.2	0.839	0.916	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	7	17.	15.857	21.	9.	21.476	4.634	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	7	200.	228.571	800.	50.	68214.286	261.179	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	7	2.301	2.172	2.903	1.699	0.177	0.421	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			148.599								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/09/70-06/21/79	8	1.3	1.331	4.	0.05	1.669	1.292	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	8	0.67	0.923	3.	0.005	1.039	1.019	**	**	**	**

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### Annual Analysis for 1977 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	11	16.	13.182	31.	1.	100.564	10.028	1.	2.	20.	29.4
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	11	9.3	8.682	13.	1.1	11.48	3.388	2.08	6.4	11.5	12.84
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	11	2.	1.727	2.	1.	0.218	0.467	1.	1.	2.	2.
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	11	7.	6.795	7.6	5.5	0.332	0.576	5.68	6.5	7.	7.58
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	11	7.	6.358	7.6	5.5	0.543	0.737	5.68	6.5	7.	7.58
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	06/28/68-06/20/90	11	0.1	0.439	3.162	0.025	0.831	0.912	0.026	0.1	0.316	2.609
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	11	6.	8.364	20.	3.	26.055	5.104	3.	5.	11.	18.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	11	3.	3.545	10.	0.	10.073	3.174	0.	1.	5.	9.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	11	4.	4.818	13.	0.	16.764	4.094	0.2	2.	8.	12.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	11	0.1	0.159	0.5	0.05	0.022	0.15	0.05	0.05	0.3	0.46
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	11##	0.005	0.022	0.08	0.005	0.001	0.026	0.005	0.005	0.04	0.076
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	5	0.29	0.54	1.699	0.1	0.428	0.654	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	11	0.7	0.627	1.199	0.2	0.098	0.313	0.22	0.3	0.9	1.139
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	11	9.	9.455	17.	1.	20.273	4.503	2.	7.	14.	16.6
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	10##	50.	760.	6000.	50.	3461000.	1860.376	50.	50.	450.	5490.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	10##	1.699	2.14	3.778	1.699	0.516	0.719	1.699	1.699	2.596	3.696
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			138.144								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/09/70-06/21/79	11	0.1	0.405	1.6	0.05	0.25	0.5	0.05	0.05	0.8	1.46
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	11	0.12	0.397	1.399	0.005	0.207	0.455	0.012	0.08	0.8	1.299

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	9	15.	15.8	25.	0.7	60.998	7.81	0.7	11.	22.5	25.
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	9	7.9	8.889	14.8	6.	7.054	2.656	6.	7.75	10.	14.8
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	8	1.5	1.5	2.	1.	0.286	0.535	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	9	6.3	6.2	6.5	5.4	0.13	0.361	5.4	6.	6.5	6.5
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	9	6.3	6.027	6.5	5.4	0.164	0.405	5.4	6.	6.5	6.5
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	06/28/68-06/20/90	9	0.501	0.94	3.981	0.316	1.376	1.173	0.316	1.	3.981	
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	9	7.	8.889	22.	2.	39.611	6.294	2.	3.5	12.5	22.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	9	4.	3.556	8.	0.	6.028	2.455	0.	1.5	5.	8.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	9	4.	5.389	14.	0.	23.861	4.885	0.	0.75	9.5	14.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	9##	0.05	0.061	0.1	0.05	0.	0.022	0.05	0.05	0.075	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	9##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	4	0.13	0.144	0.29	0.025	0.012	0.109	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	9	0.4	0.461	1.3	0.05	0.127	0.357	0.05	0.25	0.55	1.3
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	9	12.	12.556	18.	4.	23.028	4.799	4.	9.	17.	18.
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	9	200.	316.667	1400.	50.	194375.	440.88	50.	50.	400.	1400.

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### Annual Analysis for 1978 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	9	2.301	2.214	3.146	1.699	0.256	0.506	1.699	1.699	2.54	3.146
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	163.61								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	9	0.1	0.078	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	9	0.05	0.053	0.1	0.005	0.001	0.038	0.005	0.015	0.09	0.1

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### Annual Analysis for 1979 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	10	12.5	12.65	21.5	2.	46.503	6.819	2.	8.	18.875	21.35
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	5	39.	40.	46.	36.	13.5	3.674	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	10	9.35	9.76	13.2	7.8	2.934	1.713	7.84	8.5	10.875	13.08
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	9	1.	1.278	3.	0.5	0.569	0.755	0.5	1.	1.5	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	5	29.	24.8	37.	2.	208.7	14.446	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.4	6.46	7.1	6.	0.145	0.381	6.	6.15	6.775	7.09
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.389	6.333	7.1	6.	0.163	0.403	6.	6.15	6.775	7.09
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	10	0.409	0.464	1.	0.079	0.111	0.333	0.081	0.175	0.723	1.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	7.5	7.8	15.	4.	11.956	3.458	4.	4.75	10.	14.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	10	3.5	3.3	6.	1.	2.011	1.418	1.1	2.	4.	5.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	4.5	4.5	9.	2.	4.722	2.173	2.	2.75	6.	8.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.005	0.023	0.18	0.005	0.003	0.055	0.005	0.005	0.005	0.163
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	8	0.175	0.146	0.26	0.005	0.01	0.102	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	0.3	0.275	0.5	0.05	0.013	0.114	0.065	0.2	0.3	0.48
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5 ##	0.05	0.06	0.1	0.05	0.001	0.022	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.03	0.024	0.04	0.01	0.	0.013	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	10	12.	11.9	20.	4.	30.544	5.527	4.1	6.5	18.	19.8
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	9	100.	788.889	3800.	50.	1709861.111	1307.617	50.	50.	1300.	3800.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	9	2.	2.333	3.58	1.699	0.557	0.747	1.699	1.699	3.011	3.58
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	215.384								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	5 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	5 ##	0.005	0.021	0.07	0.005	0.001	0.028	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	10	13.25	13.65	27.	2.	71.225	8.439	2.4	6.75	20.	26.9
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	56.	56.3	73.	39.	190.011	13.784	39.1	44.5	69.5	72.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	10	9.55	9.51	12.4	6.7	3.568	1.889	6.79	7.75	10.85	12.38
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	10	2.	1.9	4.	1.	0.989	0.994	1.	1.	2.25	3.9
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	10	19.5	20.1	35.	9.	65.433	8.089	9.2	11.75	25.	34.3
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.45	6.51	7.5	5.5	0.312	0.559	5.55	6.225	7.	7.45
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.447	6.199	7.5	5.5	0.42	0.648	5.55	6.225	7.	7.45
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	10	0.357	0.632	3.162	0.032	0.866	0.93	0.038	0.1	0.626	2.946
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	6.5	11.55	52.	2.5	220.303	14.843	2.5	2.5	12.5	48.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	10	2.5	4.35	9.	2.	8.614	2.935	2.	2.	7.5	9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	2.75	7.95	43.	0.	163.414	12.783	0.1	2.125	10.	39.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.05	0.105	0.5	0.05	0.02	0.14	0.05	0.05	0.1	0.46
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.005	0.012	0.03	0.005	0.	0.011	0.005	0.005	0.023	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.27	0.326	0.7	0.025	0.057	0.239	0.03	0.138	0.535	0.7
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	0.3	0.49	1.7	0.1	0.243	0.493	0.1	0.175	0.675	1.62
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	0.1	0.15	0.7	0.05	0.039	0.199	0.05	0.05	0.125	0.65

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### Annual Analysis for 1980 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.045	0.083	0.31	0.01	0.009	0.094	0.01	0.025	0.118	0.296
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	10	13.	12.9	19.	7.	15.433	3.929	7.2	9.	16.25	18.8
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10	150.	1740.	8000.	50.	7339888.889	2709.223	50.	87.5	3775.	7630.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10	2.151	2.575	3.903	1.699	0.733	0.856	1.699	1.925	3.576	3.876
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		375.498							

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### Annual Analysis for 1981 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	10	16.25	15.5	26.	3.	75.556	8.692	3.15	6.375	23.75	26.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	69.	77.	163.	48.	1078.2	32.836	48.8	58.	79.	151.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	10	8.45	8.7	12.5	5.1	5.658	2.379	5.24	7.175	10.225	12.49
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	11	2.	1.636	3.	1.	0.455	0.674	1.	1.	2.	2.8
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	11	19.	20.545	38.	10.	66.873	8.178	10.2	14.	26.	35.8
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.4	6.43	7.3	6.	0.129	0.359	6.01	6.175	6.525	7.23
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.4	6.332	7.3	6.	0.14	0.374	6.01	6.175	6.525	7.23
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	10	0.398	0.466	1.	0.05	0.077	0.278	0.07	0.3	0.672	0.979
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	11 ##	2.5	6.818	15.	2.5	27.614	5.255	2.5	2.5	12.	14.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	11 ##	2.5	3.545	9.	2.	4.123	2.03	2.1	2.5	4.	8.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	11 ##	2.5	4.636	10.	2.5	7.105	2.665	2.5	2.5	7.	9.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	11 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	11	0.13	0.232	0.9	0.25	0.083	0.289	0.025	0.06	0.17	0.86
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	11	0.4	0.373	0.7	0.1	0.026	0.162	0.12	0.3	0.5	0.66
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.114	0.3	0.05	0.006	0.074	0.05	0.05	0.1	0.28
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.04	0.057	0.19	0.005	0.003	0.05	0.008	0.03	0.06	0.172
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	11	11.	11.636	18.	5.	17.655	4.202	5.2	9.	15.	17.8
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	11	100.	695.455	3400.	50.	1201227.273	1096.005	50.	50.	900.	3140.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	11	2.	2.314	3.531	1.699	0.518	0.72	1.699	1.699	2.954	3.49
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		205.844							

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### Annual Analysis for 1982 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	10	15.	15.45	26.	5.	36.636	6.053	5.45	11.375	20.	25.55
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	9	47.	102.333	517.	42.	24263.5	155.767	42.	43.5	64.5	517.
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	9	8.6	8.8	12.	6.6	3.238	1.799	6.6	7.1	10.3	12.
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	10	2.	1.9	3.	1.	0.544	0.738	1.	1.	2.25	3.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	10	25.5	24.2	32.	17.	28.844	5.371	17.	17.75	28.5	31.8
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.15	6.21	6.7	6.	0.063	0.251	6.	6.	6.35	6.68
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.125	6.154	6.7	6.	0.067	0.258	6.	6.	6.35	6.68
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	10	0.751	0.702	1.	0.2	0.107	0.328	0.211	0.455	1.	1.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	7.	7.6	17.	2.5	27.267	5.222	2.5	2.5	12.	16.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	10	3.5	5.3	10.	2.5	10.567	3.251	2.5	2.5	9.	9.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	2.5	3.3	9.	2.	4.344	2.084	2.	2.	2.375	3.25
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.17	0.183	0.4	0.09	0.009	0.094	0.091	0.108	0.223	0.386
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	0.475	0.425	0.5	0.3	0.008	0.092	0.3	0.3	0.5	0.5
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10 ##	0.05	0.08	0.2	0.05	0.002	0.048	0.05	0.05	0.1	0.19
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.03	0.036	0.07	0.01	0.	0.022	0.01	0.018	0.06	0.069

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	10	8.5	9.2	15.	5.	11.956	3.458	5.1	6.	13.	14.8
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10	250.	915.	6200.	50.	3661694.444	1913.555	50.	50.	625.	5740
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10	2.389	2.383	3.792	1.699	0.472	0.687	1.699	1.699	2.659	3.734
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		241.313							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	10	11.75	13.15	27.	0.5	69.169	8.317	1.05	6.75	21.5	26.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	53.	54.9	81.	41.	147.211	12.133	41.3	45.5	60.75	79.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	10	11.05	10.74	14.	6.5	5.058	2.249	6.71	8.825	12.25	13.9
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	9	2.	1.778	3.	1.	0.694	0.833	1.	1.	2.5	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	10	17.5	19.9	36.	14.	46.1	6.79	14.1	15.	23.5	34.9
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	9	6.3	6.244	6.8	5.8	0.083	0.288	5.8	6.05	6.4	6.8
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	9	6.3	6.167	6.8	5.8	0.09	0.299	5.8	6.05	6.4	6.8
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	9	0.501	0.681	1.585	0.158	0.18	0.425	0.158	0.398	0.897	1.585
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	7.5	9.15	25.	2.5	39.781	6.307	2.75	5.75	11.5	23.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	10	5.	5.05	8.	2.	3.914	1.978	2.05	3.625	7.	7.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	10	3.	4.35	17.	0.	24.003	4.899	0.	1.5	6.	15.9
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.26	0.29	0.6	0.09	0.027	0.165	0.094	0.153	0.415	0.586
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	0.3	0.5	1.2	0.1	0.127	0.356	0.11	0.275	0.75	1.17
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10 ##	0.05	0.095	0.3	0.05	0.007	0.086	0.05	0.05	0.125	0.29
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.02	0.051	0.16	0.005	0.003	0.055	0.007	0.02	0.08	0.158
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	10	8.5	9.7	20.	4.	18.456	4.296	4.3	7.75	12.	19.2
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10 ##	50.	250.	1000.	50.	103333.333	321.455	50.	50.	500.	950.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	10 ##	1.699	2.089	3.	1.699	0.281	0.53	1.699	1.699	2.699	2.97
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		122.823							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	7	20.5	18.286	23.	9.5	24.988	4.999	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	7	44.	46.857	61.	38.	92.81	9.634	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	7	8.9	9.2	10.8	7.7	1.42	1.192	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	7	2.	1.857	3.	1.	0.476	0.69	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	7	26.	25.143	42.	10.	98.143	9.907	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	7	6.47	6.167	6.9	5.	0.516	0.718	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	7	6.47	5.629	6.9	5.	0.854	0.924	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	7	0.339	2.349	10.	0.126	14.492	3.807	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	7	5	23.5	78.	2.5	1153.667	33.966	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	7	2.5	6.5	24.	2.	62.5	7.906	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	7	2.5	18.071	62.	0.	750.286	27.391	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	7 ##	0.05	0.071	0.2	0.05	0.003	0.057	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	7 ##	0.005	0.012	0.04	0.005	0.	0.013	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	7	0.16	0.19	0.5	0.02	0.026	0.16	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	7	0.4	0.443	0.7	0.2	0.03	0.172	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	7	0.2	0.179	0.4	0.05	0.013	0.115	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	7	0.11	0.119	0.33	0.01	0.011	0.104	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	7	14.	13.	18.	5.	20.667	4.546	**	**	**	**

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### Annual Analysis for 1984 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	7	400.	964.286	3700.	50.	1813928.571	1346.822	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	7	2.602	2.589	3.568	1.699	0.44	0.663	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	388.342								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	10	15.	14.45	24.5	2.6	47.372	6.883	2.89	10.	19.75	24.25
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	60.5	69.3	172.	44.	1393.567	37.331	44.3	47.75	67.75	162.4
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	10	10.8	10.64	14.4	8.	3.483	1.866	8.04	8.925	11.55	14.13
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	10	1.	0.9	1.	0.5	0.044	0.211	0.5	0.875	1.	1.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	10	20.5	19.2	28.	11.	33.733	5.808	11.	12.5	24.	27.6
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.7	6.5	8.	4.8	0.847	0.92	4.87	5.875	7.1	7.91
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	10	6.689	5.668	8.	4.8	1.616	1.271	4.87	5.875	7.1	7.91
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	10	0.205	2.148	15.849	0.01	24.086	4.908	0.017	0.079	1.541	14.58
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	10##	2.5	3.65	8.	2.5	3.947	1.987	2.5	2.5	5.25	7.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	10##	2.5	2.45	3.	1.	0.303	0.55	1.15	2.5	2.625	3.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	10##	2.5	2.95	5.	2.	1.192	1.092	2.05	2.5	3.125	5.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	8##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	8##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	8	0.16	0.325	1.34	0.09	0.174	0.417	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	6	0.35	0.333	0.4	0.2	0.007	0.082	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	6##	0.05	0.142	0.6	0.05	0.05	0.225	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	8	0.025	0.091	0.55	0.005	0.035	0.186	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	10	8.	7.7	12.	2.	10.678	3.268	2.2	5.5	10.5	12.
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	10##	75.	95.	300.	50.	5805.556	76.194	50.	50.	100.	280.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	10##	1.849	1.897	2.477	1.699	0.064	0.253	1.699	1.699	2.	2.429
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	78.922								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	12	12.25	14.375	25.	4.	47.708	6.907	5.2	8.625	20.9	24.07
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	12	58.	58.333	87.	46.	123.879	11.13	46.	50.5	60.5	81.6
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	12	10.6	10.217	12.1	8.	1.672	1.293	8.15	9.05	11.2	11.92
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	12	1.	1.292	3.	0.5	0.475	0.689	1.	1.75	2.7	
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	12	24.	21.833	32.	5.	56.152	7.493	7.7	16.	27.25	31.1
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.945	6.871	7.37	6.1	0.145	0.381	6.16	6.64	7.175	7.328
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	12	6.943	6.695	7.37	6.1	0.179	0.423	6.16	6.64	7.175	7.328
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	12	0.114	0.202	0.794	0.043	0.051	0.225	0.048	0.067	0.23	0.706
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	12	6.	6.25	15.	2.5	13.75	3.708	2.5	2.5	8.	13.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	12	3.	3.417	7.	2.	1.992	1.412	2.15	2.5	4.	6.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	12	2.75	3.667	8.	2.	3.424	1.85	2.	2.5	4.75	7.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	12##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	12##	0.005	0.009	0.03	0.005	0.	0.008	0.005	0.005	0.01	0.027
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	12	0.195	0.21	0.41	0.05	0.012	0.109	0.062	0.115	0.315	0.389
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	12	0.5	0.458	0.6	0.2	0.023	0.151	0.23	0.3	0.6	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	12	0.1	0.113	0.3	0.05	0.008	0.091	0.05	0.05	0.1	0.3
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	12	0.04	0.053	0.21	0.02	0.003	0.052	0.02	0.023	0.058	0.168
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	12	9.	8.75	13.	6.	5.295	2.301	6.	6.25	10.	12.7
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	11	200.	240.909	700.	50.	45909.091	214.264	50.	50.	400.	660.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	11	2.301	2.211	2.845	1.699	0.176	0.419	1.699	1.699	2.602	2.816
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		162.596							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	11	15.4	15.373	28.	4.5	60.422	7.773	5.	9.5	22.2	27.3
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	64.	69.455	132.	45.	535.873	23.149	46.6	55.	75.	121.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	9	10.4	10.433	12.	8.7	1.488	1.22	8.7	9.25	11.7	12.
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	11	2.	2.318	9.	0.5	5.414	2.327	0.6	1.	2.	7.8
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	11	24.	24.545	32.	11.	36.473	6.039	12.8	22.	30.	31.8
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	11	6.74	6.771	8.03	5.81	0.384	0.62	5.868	6.48	6.89	7.944
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	11	6.74	6.456	8.03	5.81	0.493	0.702	5.868	6.48	6.89	7.944
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	11	0.182	0.35	1.549	0.009	0.204	0.451	0.012	0.129	0.331	1.398
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	11	7.	12.818	44.	2.5	165.914	12.881	2.5	5.	13.	41.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	9##	2.5	4.056	12.	0.	16.403	4.05	0.	2.25	6.25	12.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	11	7.	14.273	58.	2.5	294.368	17.157	2.5	5.	18.	53.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10##	0.05	0.065	0.2	0.05	0.002	0.047	0.05	0.05	0.05	0.185
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	11##	0.005	0.01	0.03	0.005	0.	0.008	0.005	0.005	0.01	0.028
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	11	0.14	0.251	0.89	0.08	0.063	0.25	0.082	0.11	0.28	0.82
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	11	0.5	0.736	3.	0.1	0.627	0.792	0.14	0.4	0.7	2.62
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.114	0.5	0.05	0.017	0.131	0.05	0.05	0.1	0.42
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.04	0.057	0.18	0.01	0.002	0.049	0.012	0.03	0.06	0.166
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	7	8.	8.857	14.	6.	10.476	3.237	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	9	300.	355.556	1000.	50.	112152.778	334.892	50.	75.	600.	1000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	9	2.477	2.351	3.	1.699	0.225	0.474	1.699	1.849	2.753	3.
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		224.352							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	13	15.	14.238	24.5	4.	68.309	8.265	4.4	5.75	22.	23.98
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	9	65.	65.	74.	59.	21.25	4.61	59.	61.5	68.	74.
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	13	10.1	10.538	13.5	7.7	5.123	2.263	7.86	8.2	12.8	13.5
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	9	1.	1.167	2.	0.5	0.25	0.5	0.5	1.	1.5	2.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	9	22.	23.444	36.	11.	60.028	7.748	11.	18.5	30.5	36.
00400p	PH (STANDARD UNITS)	06/28/68-06/20/90	13	7.27	7.265	8.9	6.17	0.673	0.82	6.274	6.67	7.345	8.9
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	13	7.27	6.833	8.9	6.17	0.875	0.936	6.274	6.67	7.345	8.9
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	13	0.054	0.147	0.676	0.001	0.037	0.193	0.001	0.045	0.223	0.554
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	9	8.	17.056	42.	2.5	220.903	14.863	2.5	6.5	30.5	42.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	9	4.	4.722	10.	2.	8.694	2.949	2.	2.	7.	10.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	9	6.	12.611	34.	2.	140.736	11.863	2.	3.75	22.5	34.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.08	0.092	0.22	0.01	0.004	0.063	0.011	0.05	0.13	0.214
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.02	0.028	0.06	0.01	0.	0.017	0.01	0.018	0.043	0.059
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.205	0.241	0.87	0.06	0.055	0.235	0.062	0.087	0.258	0.811
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	0.55	0.53	0.8	0.3	0.02	0.142	0.31	0.4	0.6	0.78
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	0.1	0.15	0.4	0.05	0.011	0.105	0.05	0.088	0.2	0.38
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.075	0.081	0.16	0.03	0.002	0.049	0.03	0.03	0.115	0.16
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	7	7.	7.843	11.6	4.7	5.483	2.342	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	11	600.	727.273	3900.	50.	1223181.818	1105.976	50.	50.	800.	3300.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	11	2.778	2.456	3.591	1.699	0.446	0.668	1.699	1.699	2.903	3.464

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0019

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	285.619							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0019

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	12	17.25	16.042	27.	0.9	58.995	7.681	3.3	9.25	22.625	26.25
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	9	61.	61.	77.	50.	64.25	8.016	50.	54.	65.	77.
00300p OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	12	9.3	10.35	15.	7.9	5.046	2.246	8.08	8.65	12.45	14.4
00310 BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	12	2.	2.25	5.	1.	1.841	1.357	1.	1.	3.5	4.7
00340 COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	12	21.	25.417	39.	18.	52.811	7.267	18.3	19.25	32.75	37.2
00400p PH (STANDARD UNITS)	06/28/68-06/20/90	12	7.305	7.173	7.73	6.35	0.19	0.435	6.44	6.76	7.438	7.718
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	12	7.29	6.96	7.73	6.35	0.239	0.489	6.44	6.76	7.438	7.718
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	12	0.051	0.11	0.447	0.019	0.016	0.126	0.019	0.037	0.176	0.38
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	12	15.	42.583	248.	2.	5745.902	75.802	3.2	8.25	16.75	218.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	12	3.	7.292	38.	0.5	122.612	11.073	0.5	0.625	7.	32.6
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	12	9.	35.417	210.	2.	4213.538	64.912	2.9	6.25	15.75	185.4
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	10 ##	0.03	0.034	0.08	0.02	0.	0.019	0.02	0.02	0.04	0.076
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.01	0.013	0.04	0.005	0.	0.011	0.005	0.005	0.013	0.038
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	10	0.235	0.193	0.36	0.07	0.009	0.095	0.072	0.09	0.243	0.349
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	10	0.45	0.52	0.9	0.2	0.042	0.204	0.22	0.4	0.7	0.88
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	0.1	0.11	0.2	0.1	0.001	0.032	0.1	0.1	0.1	0.19
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.04	0.048	0.15	0.02	0.002	0.039	0.02	0.02	0.055	0.142
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	12	8.8	8.592	13.3	2.2	10.275	3.206	2.95	6.425	11.5	12.91
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	11	400.	518.182	1700.	50.	349136.364	590.878	50.	100.	600.	1680.
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	11	2.602	2.438	3.23	1.699	0.295	0.543	1.699	2.	2.778	3.225
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	273.973							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

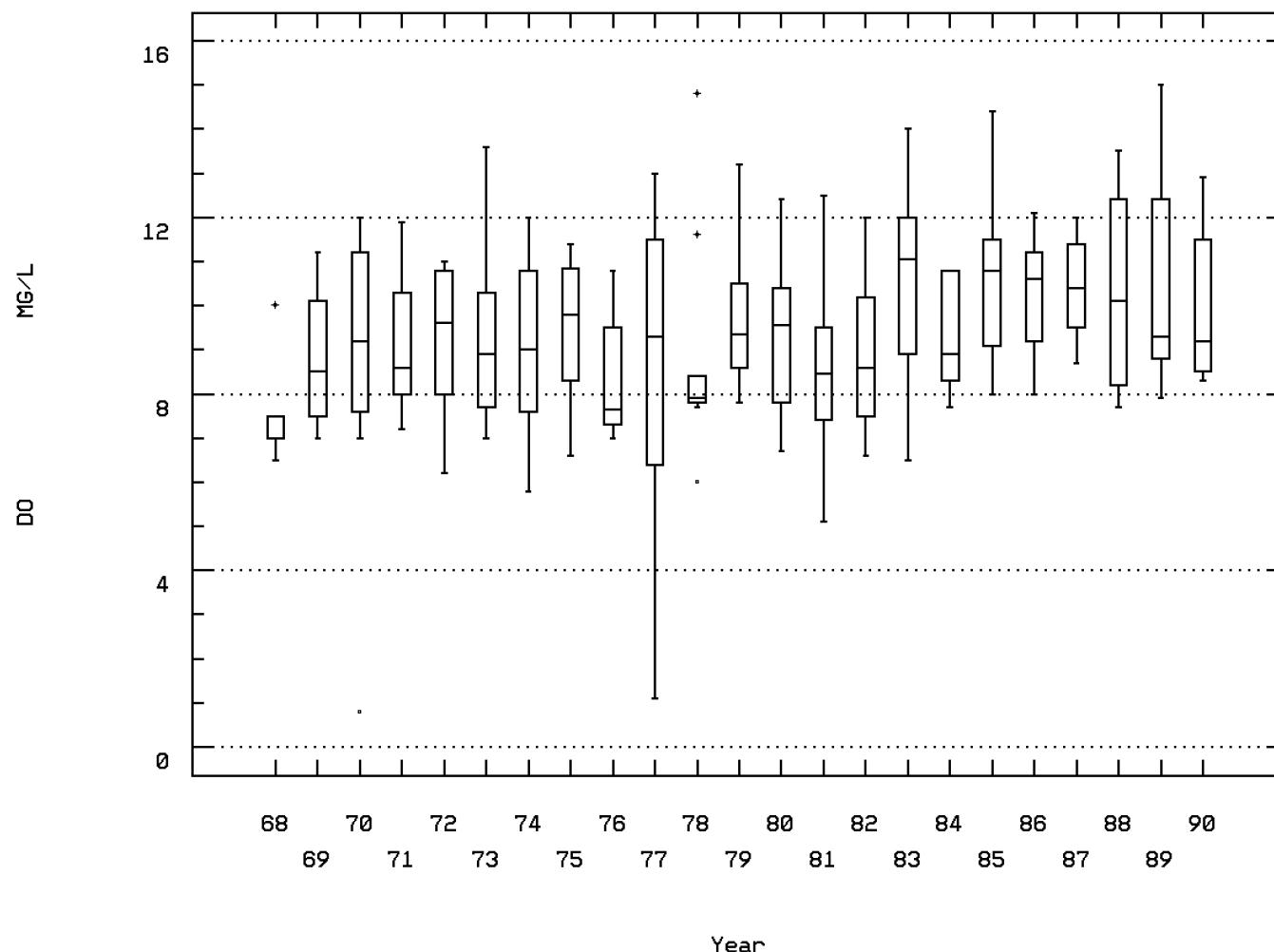
### Annual Analysis for 1990 - Station RICH0019

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	5	16.7	14.88	21.3	6.7	47.392	6.884	**	**	**	**
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	1	67.	67.	67.	0.	0.	0.	**	**	**	**
00300p OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	5	9.2	10.08	12.9	8.3	4.102	2.025	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	6	2.	2.333	4.	1.	1.067	1.033	**	**	**	**
00340 COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	6	20.5	24.833	48.	12.	174.567	13.212	**	**	**	**
00400p PH (STANDARD UNITS)	06/28/68-06/20/90	5	7.03	6.944	7.54	6.22	0.232	0.482	**	**	**	**
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	5	7.03	6.72	7.54	6.22	0.295	0.544	**	**	**	**
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	5	0.093	0.191	0.603	0.029	0.055	0.234	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	6	17.5	20.	44.	1.	230.	15.166	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	6	4.5	5.167	10.	1.	13.367	3.656	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	6	11.	14.917	34.	0.5	154.042	12.411	**	**	**	**
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	5	0.08	0.098	0.16	0.06	0.002	0.041	**	**	**	**
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	5	0.01	0.014	0.03	0.01	0.	0.009	**	**	**	**
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	5	0.25	0.286	0.49	0.21	0.013	0.116	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	5	0.6	0.72	1.	0.5	0.047	0.217	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5	0.1	0.09	0.1	0.05	0.001	0.022	**	**	**	**
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.05	0.058	0.1	0.04	0.001	0.025	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	6	8.25	8.317	12.1	5.6	4.654	2.157	**	**	**	**
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	5	100.	620.	2500.	50.	1125750.	1061.014	**	**	**	**
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	5	2.	2.28	3.398	1.699	0.527	0.726	**	**	**	**
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	190.365							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station: RICH0019 Parameter Code: 00300

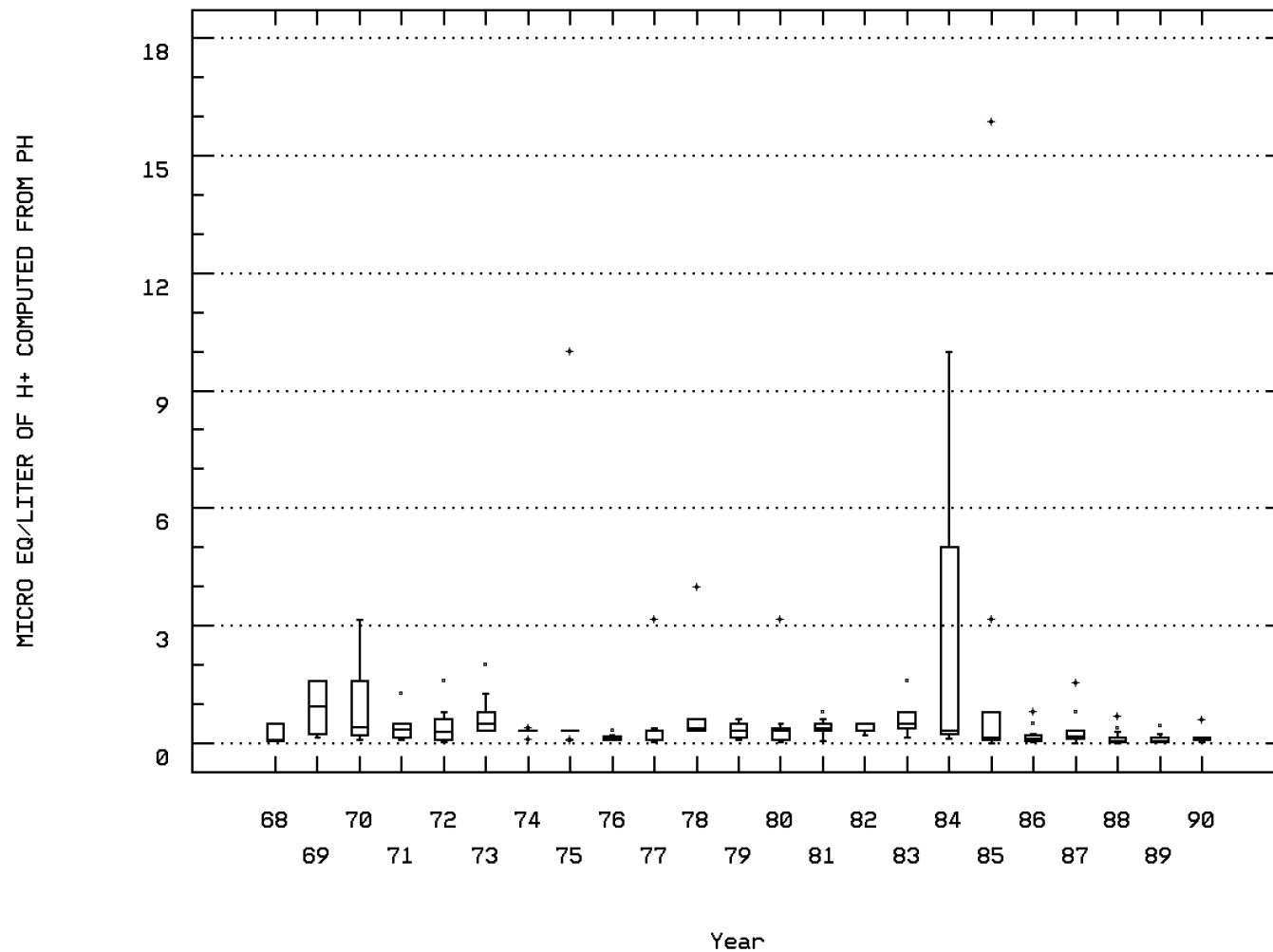
OXYGEN, DISSOLVED



RT. 1 BRIDGE

Station: RICH0019 Parameter Code: 00400

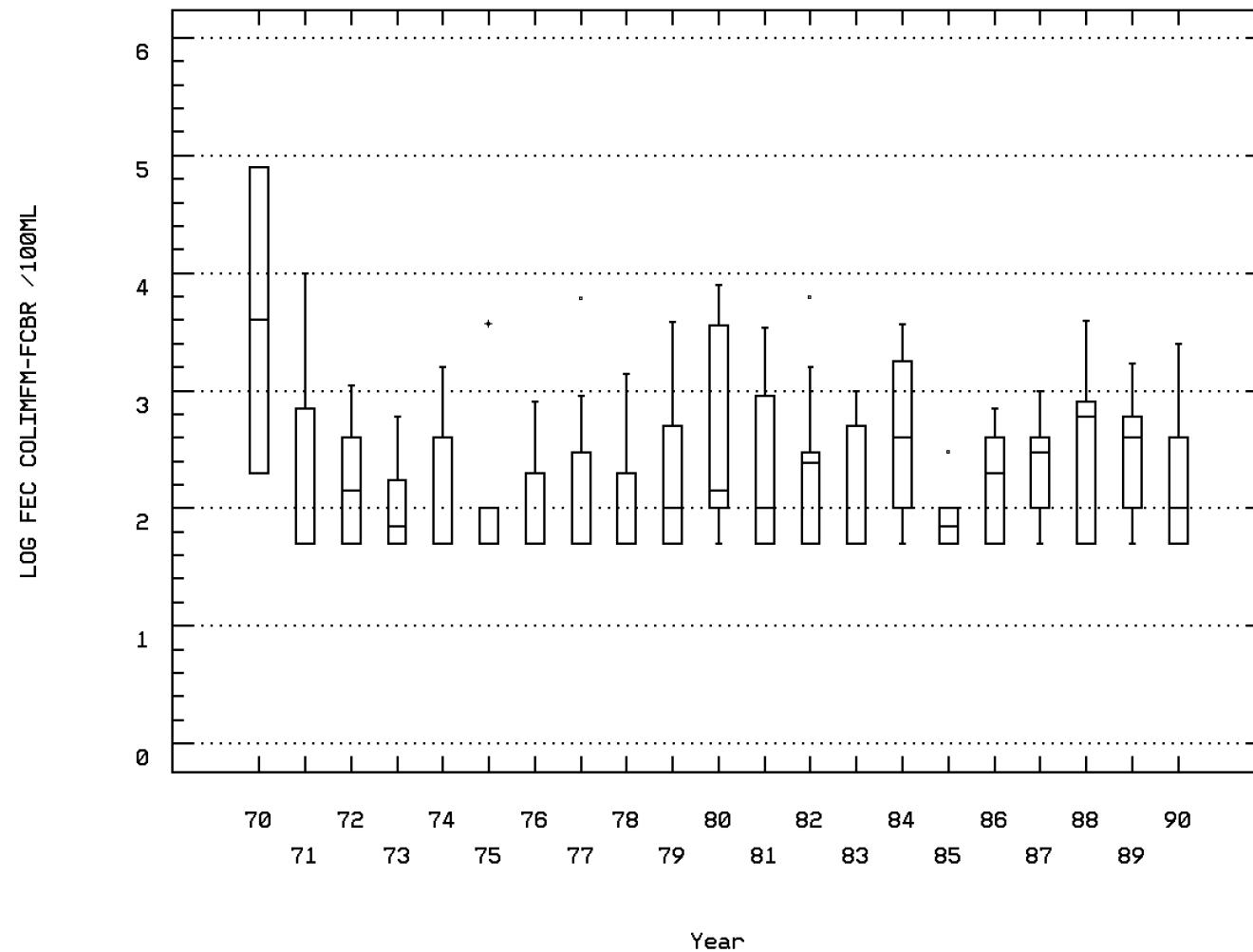
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 1 BRIDGE

Station: RICH0019 Parameter Code: 31616

LOG FECAL COLIFORM, MEMBR FILTER, M-FC BR



RT. 1 BRIDGE

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	64	22.1	22.139	31.	10.	13.958	3.736	17.35	21.	24.5	27.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	27	65.	90.481	517.	36.	8348.644	91.371	44.	59.	81.	164.8
00300	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	64	8.	7.834	11.7	0.8	3.015	1.736	6.25	7.4	8.6	9.5
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	41	1.	2.483	25.	0.5	15.858	3.982	1.	1.	2.	4.88
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	28	24.	24.821	36.	11.	36.671	6.056	17.7	20.25	30.	32.4
00400	PH (STANDARD UNITS)	06/28/68-06/20/90	64	6.5	6.535	7.6	5.	0.253	0.503	6.	6.3	6.895	7.265
00400	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	64	6.5	6.199	7.6	5.	0.368	0.607	6.	6.3	6.895	7.265
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	64	0.316	0.632	10.	0.025	1.843	1.358	0.055	0.127	0.501	1.
00403	PH, LAB, STANDARD UNITS SU	10/24/68-06/20/90	5	5.8	5.98	6.8	4.8	0.712	0.844	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	10/24/68-06/20/90	5	5.8	5.403	6.8	4.8	1.127	1.062	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-06/20/90	5	1.585	3.949	15.849	0.158	44.938	6.704	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-06/20/90	5	9.	7.4	11.	3.	16.8	4.099	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/24/68-06/20/90	3	70.	82.667	114.	64.	745.333	27.301	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-06/20/90	3	33.	33.	46.	20.	169.	13.	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-06/20/90	3	50.	49.667	68.	31.	342.333	18.502	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	41	7.	10.902	148.	0.5	506.615	22.508	2.5	2.5	11.5	16.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	41	2.5	3.707	20.	0.	11.225	3.35	0.5	2.5	4.	7.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	41	3.	7.829	128.	0.	385.77	19.641	0.1	2.25	8.5	12.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	46 ##	0.05	0.096	0.4	0.01	0.008	0.09	0.05	0.05	0.1	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	47 ##	0.005	0.049	1.599	0.005	0.054	0.232	0.005	0.005	0.02	0.042
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	45	0.32	0.526	2.409	0.025	0.305	0.552	0.07	0.16	0.7	1.476
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	47	0.6	0.784	3.	0.2	0.296	0.544	0.3	0.4	1.099	1.479
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	27	0.1	0.178	0.6	0.05	0.019	0.138	0.05	0.1	0.2	0.42
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	27	0.06	0.107	0.55	0.03	0.011	0.104	0.03	0.04	0.15	0.182
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	39	12.	12.069	20.	4.	14.476	3.805	8.6	9.	15.	18.
00940	CHLORIDE, TOTAL IN WATER MG/L	06/22/75-06/20/90	1	6.	6.	6.	0.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	07/15/69-03/28/85	4 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	07/15/69-03/28/85	4 ##	5.	8.75	20.	5.	56.25	7.5	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	07/15/69-03/28/85	4 ##	17.5	22.5	50.	5.	475.	21.794	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	54	300.	750.926	6200.	50.	1462216.108	1209.221	50.	100.	825.	2150.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/20/90	54	2.477	2.489	3.792	1.699	0.343	0.586	1.699	2.	2.916	3.332
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			308.379								
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	20	0.5	0.815	4.	0.05	0.936	0.967	0.055	0.125	1.075	2.15
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	20	0.395	0.683	3.	0.02	0.64	0.8	0.052	0.093	1.049	2.129

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	86	7.8	7.853	21.	0.5	19.47	4.412	2.	4.4	10.6	13.09
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	45	58.	57.733	79.	39.	136.7	11.692	40.	46.	67.5	75.
00300	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	86	10.95	10.943	15.	6.5	2.909	1.706	8.6	9.8	12.	13.
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	63	2.	1.711	6.	0.5	1.094	1.046	1.	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	48	19.	19.625	38.	2.	65.984	8.123	10.9	13.25	27.	30.1
00400	PH (STANDARD UNITS)	06/28/68-06/20/90	86	6.49	6.53	8.03	4.8	0.372	0.61	5.94	6.	7.	7.3
00400	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	86	6.49	6.078	8.03	4.8	0.578	0.761	5.94	6.	7.	7.3
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	86	0.324	0.836	15.849	0.009	4.252	2.062	0.05	0.1	1.	1.175
00403	PH, LAB, STANDARD UNITS SU	10/24/68-06/20/90	11	6.1	6.191	7.1	5.6	0.253	0.503	5.6	5.8	6.6	7.06
00403	CONVERTED PH, LAB, STANDARD UNITS	10/24/68-06/20/90	11	6.1	5.988	7.1	5.6	0.298	0.546	5.6	5.8	6.6	7.06
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-06/20/90	11	0.794	1.028	2.512	0.079	0.759	0.871	0.089	0.251	1.585	2.512
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-06/20/90	11	5.	7.727	24.	2.	40.418	6.358	2.2	4.	11.	21.8
00500	RESIDUE, TOTAL (MG/L)	10/24/68-06/20/90	12	74.	115.833	532.	48.	17568.333	132.546	50.1	68.	104.5	407.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-06/20/90	12	23.5	34.	80.	18.	511.818	22.623	18.3	19.25	40.	80.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-06/20/90	10	52.	86.	452.	3.	17083.111	130.702	5.1	27.75	66.	415.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	63	6.	13.008	248.	2.	1038.835	32.231	2.5	2.5	10.	22.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	63	2.5	3.984	38.	0.	23.5	4.848	1.	2.	4.	6.6

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	63	3.	9.77	210.	0.	754.297	27.464	2.	2.5	7.	15.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	74 ##	0.05	0.098	0.5	0.02	0.012	0.108	0.05	0.05	0.1	0.22
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	74 ##	0.005	0.011	0.18	0.005	0.	0.022	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	70	0.175	0.198	1.409	0.005	0.033	0.18	0.051	0.11	0.24	0.327
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	74	0.3	0.433	1.5	0.05	0.081	0.284	0.2	0.3	0.5	0.85
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	48 ##	0.05	0.08	0.4	0.05	0.003	0.059	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	48	0.025	0.038	0.33	0.005	0.003	0.052	0.01	0.02	0.038	0.064
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	57	8.	8.675	20.	1.	17.459	4.178	4.56	6.	9.5	16.2
00940	CHLORIDE, TOTAL IN WATER MG/L	06/22/75-06/20/90	8	10.5	10.75	15.	7.	5.929	2.435	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	07/15/69-03/28/85	6 ##	5.	6.667	10.	5.	6.667	2.582	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	07/15/69-03/28/85	6 ##	5.	9.167	30.	5.	104.167	10.206	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	07/15/69-03/28/85	6	15.	18.333	50.	5.	286.667	16.931	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	82 ##	50.	1214.024	80000.	50.	77815078.666	8821.286	50.	50.	200.	600.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	82 ##	1.699	2.063	4.903	1.699	0.319	0.565	1.699	1.699	2.301	2.778
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	115.719							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	26	0.1	0.212	1.2	0.05	0.099	0.315	0.05	0.05	0.2	0.93
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	26	0.09	0.174	1.	0.005	0.073	0.27	0.005	0.048	0.14	0.72

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-06/20/90	71	16.7	16.913	30.	6.	23.269	4.824	10.22	13.5	20.6	22.84
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	32	52.	53.906	87.	38.	128.281	11.326	41.3	45.25	59.75	73.7
03000	OXYGEN, DISSOLVED MG/L	06/28/68-06/20/90	69	9.2	9.174	13.5	6.2	2.558	1.6	7.	8.2	10.05	11.
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-06/20/90	57	2.	2.116	6.	0.5	1.171	1.082	1.	1.	2.25	4.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	37	23.	24.865	48.	10.	64.009	8.001	16.	19.5	28.	36.6
00400	PH (STANDARD UNITS)	06/28/68-06/20/90	72	6.5	6.584	8.9	5.	0.435	0.66	5.837	6.225	6.968	7.403
00400	CONVERTED PH (STANDARD UNITS)	06/28/68-06/20/90	72	6.5	6.193	8.9	5.	0.59	0.768	5.837	6.225	6.967	7.403
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-06/20/90	72	0.316	0.641	10.	0.001	1.643	1.282	0.04	0.109	0.599	1.462
00403	PH, LAB, STANDARD UNITS SU	10/24/68-06/20/90	14	6.25	6.121	6.7	5.3	0.217	0.466	5.4	5.575	6.5	6.6
00403	CONVERTED PH, LAB, STANDARD UNITS	10/24/68-06/20/90	14	6.247	5.878	6.7	5.3	0.281	0.53	5.4	5.575	6.5	6.6
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-06/20/90	14	0.566	1.325	5.012	0.2	2.281	1.51	0.258	0.316	2.674	4.087
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-06/20/90	14	8.	6.357	10.	2.	11.016	3.319	2.	2.75	9.	10.
00500	RESIDUE, TOTAL (MG/L)	10/24/68-06/20/90	15	76.	79.667	123.	45.	310.524	17.622	57.	68.	89.	106.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-06/20/90	15	33.	34.467	50.	15.	98.695	9.935	19.2	27.	45.	47.6
00510	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-06/20/90	15	43.	45.2	73.	23.	174.6	13.214	26.6	39.	52.	69.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-06/20/90	56	10.5	14.571	78.	1.	202.077	14.215	2.5	6.	16.75	30.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-06/20/90	56	5.	6.223	38.	0.5	36.463	6.038	2.	2.5	8.75	10.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-06/20/90	56	6.	9.5	58.	0.	147.018	12.125	1.55	2.5	10.	21.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/20/90	58	0.06	0.158	1.	0.02	0.036	0.191	0.05	0.05	0.2	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	59 ##	0.005	0.019	0.16	0.005	0.001	0.028	0.005	0.005	0.02	0.06
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/20/90	52	0.215	0.328	1.839	0.06	0.142	0.377	0.093	0.13	0.308	0.651
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/20/90	57	0.6	0.773	2.899	0.05	0.293	0.541	0.3	0.5	0.9	1.459
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	32	0.1	0.122	0.7	0.05	0.015	0.123	0.05	0.05	0.1	0.27
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	34	0.05	0.063	0.31	0.01	0.003	0.056	0.02	0.04	0.07	0.095
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/27/75-06/20/90	52	12.	11.84	25.	4.	20.836	4.565	6.09	8.	14.75	17.7
00940	CHLORIDE, TOTAL IN WATER MG/L	06/22/75-06/20/90	10	8.	10.6	34.	7.	68.489	8.276	7.	9.25	31.6	
01034	CHROMIUM, TOTAL (UG/L AS CR)	07/15/69-03/28/85	11 ##	5.	7.773	20.	0.5	26.068	5.106	1.4	5.	10.	18.
01042	COPPER, TOTAL (UG/L AS CU)	07/15/69-03/28/85	10 ##	5.	6.	10.	5.	4.444	2.108	5.	5.	6.25	10.
01092	ZINC, TOTAL (UG/L AS ZN)	07/15/69-03/28/85	11	10.	14.091	30.	5.	89.091	9.439	5.	5.	20.	30.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	61	100.	867.213	10000.	50.	3596323.77	1896.398	50.	50.	600.	3380.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/20/90	61	2.	2.303	4.	1.699	0.469	0.685	1.699	1.699	2.772	3.525
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	200.735							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/21/79	25	0.2	0.45	1.8	0.04	0.273	0.522	0.05	0.1	0.7	1.54
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/21/79	25	0.2	0.338	1.399	0.005	0.144	0.38	0.014	0.065	0.45	1.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0020

NPS Station ID: RICH0020  
 Location: JAMES RIVER, OFF DUTCH GAP LANDING  
 Station Type: /TYPAB/AMBN/TSTREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.381948/ -77.376948

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-JMS097.41  
 Within Park Boundary: No

Date Created: 06/25/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	51	25.8	25.961	36.5	16.	26.737	5.171	18.32	22.1	30.3	32.18
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	48	228.5	241.938	474.	121.	6256.783	79.1	147.4	181.5	304.75	350.2
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	50	7.5	7.754	9.9	6.2	0.856	0.925	6.6	7.	8.5	9.19
00400	PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.56	7.568	8.54	7.09	0.086	0.293	7.208	7.33	7.77	7.906
00400	CONVERTED PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.56	7.485	8.54	7.09	0.093	0.305	7.208	7.33	7.77	7.906
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/14/94-10/26/98	51	0.028	0.033	0.081	0.003	0.	0.019	0.012	0.017	0.047	0.062
31615	FECAL COLIFORM, MPN, EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	130.	1232.173	16000.	9.	10994984.342	3315.869	20.	68.	647.5	3200.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	2.114	2.298	4.204	0.954	0.611	0.782	1.301	1.833	2.806	3.5
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	198.662								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0020

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00		
00400	PH	Fresh Chronic	9.	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00		
31615	FECAL COLIFORM, MPN	Other-Lo Lim.	6.5	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00		
		Other-Hi Lim.	200.	52	24	0.46	32	14	0.44	5	3	0.60	15	7	0.47		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	204.	402.625	1400.	20.	235625.411	485.413	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	2.205	2.241	3.146	1.301	0.435	0.66	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		174.347									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	170.	1515.667	9200.	45.	9546828.	3089.794	45.	73.	1865.	9200.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	2.23	2.437	3.964	1.653	0.624	0.79	1.653	1.862	2.953	3.964
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		273.612									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	355.	3068.25	16000.	9.	36941730.386	6077.971	19.8	61.25	2050.	16000
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	2.516	2.583	4.204	0.954	0.983	0.991	1.164	1.75	3.26	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		382.999									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	110.	421.455	2200.	20.	431134.473	656.608	20.	20.	790.	1918.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	2.041	2.15	3.342	1.301	0.505	0.71	1.301	1.301	2.898	3.253
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		141.18									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	78.	479.667	3500.	9.	1031096.424	1015.429	18.3	50.75	280.	2840.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	1.892	2.083	3.544	0.954	0.48	0.693	1.149	1.698	2.417	3.415
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		120.934									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0021

NPS Station ID: RICH0021	LAT/LON: 37.382781/ -77.305003	Agency: 21VASWCB	Date Created: 06/25/94
Location: JAMES RIVER, MOUTH OF JONES NECK QUARRY CHANNEL		FIPS State/County: 51041 VIRGINIA/CHESTERFIELD	
Station Type: /TYPAB/AMBNT/STREAM		STORET Station ID(s): 2-JMS088.81	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: 02-NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: 2-JAMES		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:			
VIRGINIA STATE WATER CONTROL BOARD	AMBIENT MONITORING	BASIN: 2- JAMES	REGION: 4 PIEDMONT
RIVER: JAMES RIVER	SECTION: 02A	TOPO MAP #: 0137	TOPO MAP NAME: DUTCH GAP, VA

### Parameter Inventory for Station: RICH0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	51	26.6	25.614	32.3	17.9	18.94	4.352	18.32	22.5	28.8	31.14
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	47	227.	239.426	454.	116.	5271.163	72.603	161.8	181.	287.	346.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	50	8.7	8.628	12.3	6.1	2.448	1.565	6.81	7.275	9.525	10.88
00400	PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.73	7.766	8.78	6.4	0.295	0.543	7.162	7.36	8.28	8.452
00400	CONVERTED PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.73	7.432	8.78	6.4	0.409	0.639	7.162	7.36	8.28	8.452
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/14/94-10/26/98	51	0.019	0.037	0.398	0.002	0.004	0.063	0.004	0.005	0.044	0.069
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	40.	370.192	9200.	9.	2010209.452	1417.819	9.	20.	88.5	300
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	1.602	1.668	3.964	0.954	0.446	0.668	0.954	1.301	1.946	2.471
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	46.511								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0021

Parameter	Std. Type	Std. Value	Total	Exceed	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs	Standard		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00		
00400	PH	Fresh Chronic	9.	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00		
31615	FECAL COLIFORM, MPN	Other-Lo Lim.	6.5	51	1	0.02	31	1	0.03	5	0	0.00	15	0	0.00		
		Other-Hi Lim.	200.	52	7	0.13	32	2	0.06	5	2	0.40	15	3	0.20		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	30.	43.	92.	9.	1189.429	34.488	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	1.452	1.477	1.964	0.954	0.175	0.418	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		29.981									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	45.	1445.778	9200.	9.	9762346.194	3124.475	9.	20.	1805.	9200.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	1.653	2.021	3.964	0.954	1.077	1.038	0.954	1.301	2.793	3.964
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		105.071									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	40.	367.75	3500.	9.	982891.477	991.409	9.	20.	200.	2549.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	1.602	1.793	3.544	0.954	0.549	0.741	0.954	1.301	2.293	3.236
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		62.147									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	20.	39.636	230.	9.	4159.255	64.492	9.	9.	45.	193.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	1.301	1.335	2.362	0.954	0.184	0.429	0.954	0.954	1.653	2.22
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		21.646									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	45.	87.083	390.	20.	11633.902	107.861	20.	20.	140.	315.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	1.653	1.708	2.591	1.301	0.199	0.446	1.301	1.301	2.146	2.458
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		51.033									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0022

NPS Station ID: RICH0022  
Location: VIMS STATION J70 - JAMES RIVER  
Station Type: /TYP/A/AMBNT/STREAM  
RMI-Indexes:  
RMI-Miles:  
HUC: 02080206  
Major Basin: NORTH ATLANTIC  
Minor Basin: JAMES RIVER  
RF1 Index: 02080206045  
RF3 Index: 02080206044000.00  
Description:

LAT/LON: 37.383337/ -77.316670

Agency: CHESBAY  
FIPS State/County: 51087 VIRGINIA/HENRICO  
STORET Station ID(s): XPA3010  
Within Park Boundary: No

Date Created: 01/29/83

Depth of Water: 0  
Elevation: 0  
RF1 Mile Point: 4.620  
RF3 Mile Point: 0.52

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 0.00  
Distance from RF3: 0.41

On/Off RF1: ON  
On/Off RF3:

## Parameter Inventory for Station: RICH0022

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0023

NPS Station ID: RICH0023  
 Location: DUTCH GAP, BUOY 155  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206045  
 RF3 Index: 02080206004503.92  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.384809/ -77.383587

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-JMS097.77 /VA2-02-X0136/VA2-4X0136  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.05

On/Off RF1: OFF  
 On/Off RF3:

RF1 Mile Point: 8.910  
 RF3 Mile Point: 4.06

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0023

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/02/83	2010	28.	25.445	34.	5.6	36.238	6.02	15.	21.	30.5	31.5
00023	SAMPLE WEIGHT IN POUNDS	10/26/79-10/26/79	3	0.1	0.2	0.4	0.1	0.03	0.173	**	**	**	**
00024	SAMPLE LENGTH IN INCHES	10/26/79-10/26/79	3	4.4	6.033	9.6	4.1	9.563	3.092	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	07/28/75-07/16/80	2	18.1	18.1	31.	5.2	332.82	18.243	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	9##	0.12	0.266	0.8	0.105	0.076	0.276	0.105	0.118	0.428	0.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-09/27/83	16	231.	243.125	370.	154.	5073.183	71.226	156.8	177.5	297.5	356.7
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/02/83	2013	6.7	6.89	13.4	1.	1.847	1.359	5.4	6.	7.6	9.2
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	29	2.	2.376	6.2	0.5	2.225	1.492	1.	1.45	2.7	5.9
00340	COD, 25N K2CR207 MG/L	05/19/80-06/28/83	13	12.	13.769	22.	6.	30.026	5.48	6.4	8.5	18.	21.6
00400	PH (STANDARD UNITS)	07/22/68-09/27/83	79	7.5	7.51	9.2	6.2	0.293	0.541	6.9	7.2	7.6	8.3
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-09/27/83	79	7.5	7.244	9.2	6.2	0.364	0.604	6.9	7.2	7.6	8.3
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-09/27/83	79	0.032	0.057	0.631	0.001	0.007	0.083	0.005	0.025	0.063	0.126
00403	PH, LAB, STANDARD UNITS SU	03/20/69-05/26/74	6	7.05	6.917	7.3	6.	0.222	0.471	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-05/26/74	6	7.047	6.626	7.3	6.	0.323	0.568	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-05/26/74	6	0.09	0.236	1.	0.05	0.141	0.375	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-09/27/83	9	44.	45.556	67.	17.	233.528	15.282	17.	36.5	58.5	67.
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	3	0.	0.	0.	0.	0.	0.	**	**	**	**
00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	35	134.	146.657	538.	74.	5753.35	75.851	93.4	115.	152.	190.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	35	33.	43.514	226.	3.	1323.551	36.381	19.6	26.	53.	76.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	35	99.	103.143	312.	32.	2569.714	50.692	46.6	74.	119.	150.2
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-09/27/83	4	188.5	187.75	220.	154.	908.25	30.137	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-09/27/83	56	12.5	12.821	36.	0.5	53.268	7.298	4.	7.25	17.	22.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-09/27/83	56	3.	3.929	16.	0.	10.604	3.256	0.	1.25	6.	8.3
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	53	9.	9.047	32.	0.	39.474	6.283	1.4	4.	13.5	16.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	71	0.2	0.266	0.8	0.05	0.027	0.166	0.062	0.1	0.4	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	71	0.01	0.02	0.14	0.	0.001	0.026	0.005	0.005	0.02	0.048
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	71	0.38	0.399	1.289	0.01	0.06	0.246	0.11	0.21	0.53	0.7
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	3	1.	0.933	1.	0.8	0.013	0.115	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/27/83	71	0.5	0.603	3.299	0.1	0.209	0.457	0.2	0.3	0.7	1.079
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-09/27/83	3	0.5	0.567	0.8	0.4	0.043	0.208	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-09/27/83	16	0.2	0.228	0.4	0.1	0.009	0.093	0.1	0.2	0.3	0.4
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-09/27/83	3	0.4	0.333	0.4	0.2	0.013	0.115	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0023

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-09/27/83	16	0.17	0.182	0.35	0.07	0.008	0.089	0.07	0.098	0.263	0.315
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-09/27/83	16	5.5	5.688	8.	3.	3.163	1.778	3.	4.	7.	8.
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-04/24/79	38	9.5	9.447	20.	3.	17.227	4.151	4.	6.	11.	15.
01002	ARSENIC, TOTAL (UG/L AS AS)	05/02/72-10/28/82	4##	1.	1.375	2.5	1.	0.563	0.75	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/23/91-09/23/91	1	4.	4.	4.	0.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	7##	5.	4.357	5.	0.5	2.893	1.701	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/23/91-09/23/91	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/23/91-09/23/91	1	36.	36.	36.	0.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	15##	5.	4.8	10.	0.5	7.564	2.75	0.5	5.	5.	10.
01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	15##	5.	8.667	30.	5.	51.667	7.188	5.	5.	10.	24.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/23/91-09/23/91	1	41.	41.	41.	41.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	05/02/72-10/28/82	12	5.	6.375	20.	1.	27.415	5.236	1.	2.375	9.25	17.
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/23/91-09/23/91	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	1	80.	80.	80.	0.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	4##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	4##	25.	26.25	50.	5.	489.583	22.127	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/23/91-09/23/91	1	29.	29.	29.	29.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	15##	5.	18.	110.	5.	731.429	27.045	5.	5.	20.	62.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/23/91-09/23/91	1	150.	150.	150.	150.	0.	0.	**	**	**	**
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	13	9300.	20523.462	150000.	15.	1650373397.436	40624.788	101.	680.	16000.	107200.
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150)	07/22/68-09/09/70	13	3.968	3.589	5.176	1.176	1.128	1.062	1.65	2.801	4.182	4.959
31505	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	GEOMETRIC MEAN =		3883.867									
31506	COLIFORM,TOT,MPN,CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	3	93.	138.667	230.	93.	6256.333	79.097	**	**	**	**
31506	LOG COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	3	1.968	2.1	2.362	1.968	0.052	0.227	**	**	**	**
31506	GM COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	GEOMETRIC MEAN =		125.766									
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BRÖTH,44.5 C	05/06/71-09/27/83	63	200.	2131.032	80000.	9.	102683140.515	10133.269	50.	50.	1000.	3320.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	63	2.301	2.37	4.903	0.954	0.604	0.777	1.699	1.699	3.	3.521
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		234.62									
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	4	15.5	18.025	34.1	7.	143.229	11.968	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID, METH.	07/28/83-10/12/83	4	4.3	6.85	15.4	3.4	32.73	5.721	**	**	**	**
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	09/23/91-09/23/91	1	50.	50.	50.	50.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	09/23/91-09/23/91	1	500.	500.	500.	500.	0.	0.	**	**	**	**
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/23/91-09/23/91	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/23/91-09/23/91	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	09/23/91-09/23/91	1	500.	500.	500.	500.	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/27/83	4	0.05	0.05	0.1	0.	0.003	0.058	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	55	0.1	0.093	0.3	0.005	0.004	0.06	0.05	0.05	0.1	0.2
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	55	0.05	0.073	0.26	0.01	0.002	0.048	0.03	0.05	0.09	0.136
71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	14##	0.25	0.239	0.5	0.15	0.008	0.088	0.15	0.15	0.25	0.375
71918	ARSENIC, TOTAL IN FISH,DRY WEIGHT BASIS	10/26/79-10/26/79	3##	0.07	0.072	0.095	0.05	0.001	0.023	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/23/91-09/23/91	1##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-10/26/79	3	0.05	0.037	0.05	0.01	0.001	0.023	**	**	**	**
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-10/26/79	3	6.96	5.593	7.74	2.08	9.41	3.068	**	**	**	**
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-10/26/79	3	10.26	9.453	15.32	2.78	39.801	6.309	**	**	**	**
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-10/26/79	3	3.2	3.06	4.45	1.53	2.146	1.465	**	**	**	**
71940	CADMIUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-10/26/79	3##	0.07	0.072	0.095	0.05	0.001	0.023	**	**	**	**
75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	09/23/91-09/23/91	1	100.	100.	100.	100.	0.	0.	**	**	**	**
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	10/26/79-10/26/79	3	5.	5.	5.	5.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0023

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	2	0	0.00	2	0	0.00						
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2013	15	0.01	1617	13	0.01	367	0	0.00	29	2	0.07
00400 PH	Fresh Chronic	9.	79	3	0.04	41	2	0.05	9	0	0.00	29	1	0.03
00403 PH, LAB	Other-Lo Lim.	6.5	79	2	0.03	41	0	0.00	9	0	0.00	29	2	0.07
	Fresh Chronic	9.	6	0	0.00	1	0	0.00				5	0	0.00
	Other-Lo Lim.	6.5	6	1	0.17	1	0	0.00				5	1	0.20
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	71	0	0.00	35	0	0.00	9	0	0.00	27	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	71	0	0.00	35	0	0.00	9	0	0.00	27	0	0.00
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	3	0	0.00	3	0	0.00						
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	38	0	0.00	19	0	0.00	4	0	0.00	15	0	0.00
	Drinking Water	250.	38	0	0.00	19	0	0.00	4	0	0.00	15	0	0.00
01002 ARSENIC, TOTAL	Fresh Acute	360.	4	0	0.00				1	0	0.00	3	0	0.00
	Drinking Water	50.	4	0	0.00				1	0	0.00	3	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00				1	0	0.00			
	Drinking Water	5.	1 &	0	0.00				1	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	15	2	0.13	4	0	0.00	2	0	0.00	9	2	0.22
01051 LEAD, TOTAL	Drinking Water	1300.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
	Fresh Acute	82.	12	0	0.00	4	0	0.00	2	0	0.00	6	0	0.00
01065 NICKEL, DISSOLVED	Drinking Water	15.	12	1	0.08	4	1	0.25	2	0	0.00	6	0	0.00
	Fresh Acute	1400.	4	0	0.00							4	0	0.00
	Drinking Water	100.	4	0	0.00							4	0	0.00
01067 NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00				2	0	0.00	2	0	0.00
	Drinking Water	100.	4	0	0.00				2	0	0.00	2	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
	Drinking Water	5000.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	13	9	0.69	8	5	0.63				5	4	0.80
31506 COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	3	0	0.00	3	0	0.00						
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	63	32	0.51	32	15	0.47	8	4	0.50	23	13	0.57
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00				1	0	0.00	1	0	0.00
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	2	0	0.00				1	0	0.00	1	0	0.00
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	4	2	0.50	3	2	0.67				1	0	0.00
71900 MERCURY, TOTAL	Fresh Acute	2.4	14	0	0.00	5	0	0.00	2	0	0.00	7	0	0.00
	Drinking Water	2.	14	0	0.00	5	0	0.00	2	0	0.00	7	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0023

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/02/83	1615	29.5	27.731	34.	6.	15.878	3.985	21.	24.	31.	32.
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/02/83	1617	6.4	6.501	11.	2.4	1.197	1.094	5.3	5.8	7.1	7.9
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	13	2.	2.454	6.2	0.5	2.988	1.728	0.78	1.5	2.6	6.12
00400	PH (STANDARD UNITS)	07/22/68-09/27/83	41	7.5	7.578	9.2	6.7	0.278	0.527	7.12	7.3	7.6	8.5
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-09/27/83	41	7.5	7.378	9.2	6.7	0.319	0.565	7.12	7.3	7.6	8.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-09/27/83	41	0.032	0.042	0.2	0.001	0.001	0.038	0.003	0.025	0.05	0.076
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	9	152.	198.222	538.	128.	16957.194	130.22	128.	133.	193.5	538.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	9	36.	55.444	226.	24.	4139.528	64.339	24.	27.5	42.5	226.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	9	115.	142.778	312.	96.	4489.444	67.003	96.	103.5	152.	312.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-09/27/83	24	13.	13.354	36.	2.5	55.576	7.455	4.	9.	16.	24.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-09/27/83	24	3.	4.313	16.	0.	11.952	3.457	1.	2.	6.	8.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	21	9.	9.405	32.	1.	42.29	6.503	2.1	4.5	12.	14.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	35	0.29	0.292	0.6	0.05	0.025	0.16	0.1	0.17	0.48	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	35	0.02	0.029	0.14	0.	0.001	0.034	0.005	0.01	0.03	0.1
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	35	0.41	0.463	1.289	0.01	0.075	0.274	0.11	0.27	0.69	0.716
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/27/83	35	0.5	0.708	3.299	0.2	0.318	0.564	0.26	0.3	1.	1.199
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-04/24/79	19	10.	10.	20.	4.	19.222	4.384	4.	6.	14.	15.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	32	100.	715.781	8000.	9.	2329158.37	1526.158	43.	50.	875.	1850.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	32	2.	2.246	3.903	0.954	0.544	0.737	1.633	1.699	2.925	3.264
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			176.282								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	28	0.1	0.111	0.3	0.05	0.005	0.074	0.05	0.05	0.138	0.21
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	28	0.07	0.085	0.26	0.01	0.003	0.055	0.048	0.05	0.1	0.2

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0023

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/02/83	367	14.	15.627	21.5	5.6	6.472	2.544	13.4	14.	18.	19.5
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/02/83	367	8.7	8.569	12.8	6.8	1.011	1.005	7.3	7.5	9.4	9.7
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	4	2.	2.	2.	2.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-09/27/83	9	7.5	7.467	8.	6.9	0.15	0.387	6.9	7.1	7.8	8.
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-09/27/83	9	7.5	7.322	8.	6.9	0.174	0.417	6.9	7.1	7.8	8.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-09/27/83	9	0.032	0.048	0.126	0.01	0.002	0.041	0.01	0.018	0.082	0.126
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	7	135.	150.429	238.	112.	1925.619	43.882	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	7	33.	36.143	56.	26.	103.143	10.156	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	7	108.	114.286	195.	59.	1950.905	44.169	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-09/27/83	8	11.5	11.625	22.	1.	58.554	7.652	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-09/27/83	8	4.	4.375	10.	0.	12.839	3.583	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	8	8.5	7.313	16.	0.	35.21	5.934	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	9	0.2	0.286	0.5	0.05	0.033	0.182	0.05	0.135	0.5	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	9	0.01	0.018	0.06	0.005	0.	0.018	0.005	0.008	0.025	0.06
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	9	0.42	0.467	0.9	0.28	0.048	0.219	0.28	0.3	0.615	0.9
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/27/83	9	0.5	0.533	0.8	0.2	0.045	0.212	0.2	0.35	0.75	0.8
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-04/24/79	4	11.5	11.5	15.	8.	8.333	2.887	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	8	300.	1356.25	8000.	50.	7394598.214	2719.301	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	8	2.349	2.468	3.903	1.699	0.674	0.821	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			293.458								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	5	0.1	0.08	0.1	0.05	0.001	0.027	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	5	0.06	0.088	0.18	0.04	0.003	0.056	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0023

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/02/83	28	22.1	22.289	30.6	8.	26.176	5.116	16.7	19.625	25.975	28.54
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/02/83	29	7.6	7.331	13.4	1.	4.507	2.123	5.	6.45	8.45	9.3
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	12	2.05	2.417	5.9	1.	2.345	1.531	1.	1.05	3.675	5.33
00400	PH (STANDARD UNITS)	07/22/68-09/27/83	29	7.3	7.428	9.	6.2	0.361	0.601	6.8	7.05	7.85	8.3
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-09/27/83	29	7.3	7.09	9.	6.2	0.479	0.692	6.8	7.05	7.85	8.3
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-09/27/83	29	0.05	0.081	0.631	0.001	0.016	0.125	0.005	0.014	0.09	0.158
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	19	122.	120.842	162.	74.	650.585	25.507	75.	107.	138.	157.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	19	33.	40.579	84.	3.	524.48	22.902	17.	24.	55.	82.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	19	82.	80.263	125.	32.	821.982	28.67	38.	56.	102.	121.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-09/27/83	24	13.	12.688	27.	0.5	53.17	7.292	4.	6.	19.25	22.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-09/27/83	24	3.	3.396	12.	0.	8.978	2.996	0.	1.	5.75	7.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	24	8.	9.313	20.	0.5	40.518	6.365	1.5	4.	14.75	18.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	27	0.2	0.226	0.8	0.05	0.028	0.166	0.05	0.1	0.3	0.438
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	27	0.01	0.009	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	27	0.31	0.294	0.59	0.025	0.031	0.176	0.046	0.13	0.48	0.532
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/27/83	27	0.4	0.489	1.799	0.1	0.104	0.322	0.2	0.3	0.5	0.84
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-04/24/79	15	7.	8.2	20.	3.	15.743	3.968	4.2	6.	10.	14.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	23	200.	4369.565	80000.	50.	275374486.166	16594.411	50.	100.	600.	6600.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/27/83	23	2.301	2.509	4.903	1.699	0.675	0.822	1.699	2.	2.778	3.803
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	323.075								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	22 ##	0.05	0.073	0.15	0.005	0.001	0.036	0.05	0.05	0.1	0.135
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	22	0.05	0.055	0.16	0.01	0.001	0.032	0.03	0.03	0.055	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0024

NPS Station ID: RICH0024  
 Location: JAMES RIVER AT BUOY 155  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206045  
 RF3 Index: 02080207116900.70  
 Description:  
 VA SWCB CORE NETWORK STATION 21

LAT/LON: 37.384809/ -77.383587

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): XPL3170/X288850/Y4140100  
 Within Park Boundary: No

Date Created: 05/09/81

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 8.910  
 RF3 Mile Point: 1.73

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 22.50  
 Distance from RF3: 0.00

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0024

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	10/26/79-09/17/80	6	1.045	1.238	3.	0.1	1.577	1.256	**	**	**	**
71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-09/17/80	6	0.035	0.035	0.05	0.02	0.	0.016	**	**	**	**
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-09/17/80	6	1.79	3.38	7.74	0.9	9.68	3.111	**	**	**	**
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-09/17/80	6	5.9	7.31	15.32	2.78	22.334	4.726	**	**	**	**
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	10/26/79-09/17/80	6	1.7	2.263	4.45	1.	1.689	1.3	**	**	**	**
71940	CADMUIM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/26/79-09/17/80	6	0.1	0.122	0.19	0.1	0.001	0.037	**	**	**	**
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	10/26/79-09/17/80	6	5.	5.	5.	5.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0025

NPS Station ID: RICH0025  
 Location: TURKEY ISLAND CREEK  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: TURKEY ISLAND CREEK SECTION: 07 TOPO MAP #: 0141 TOPO MAP NAME: ROXBURY, VA

LAT/LON: 37.385004/ -77.236948

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-TIC002.69  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

### Parameter Inventory for Station: RICH0025

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/92-06/04/97	3	15.3	13.3	16.9	7.7	24.16	4.915	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	04/30/92-06/04/97	3	91.	95.	140.	54.	1861.	43.139	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	04/30/92-06/04/97	3	7.8	8.4	10.	7.4	1.96	1.4	**	**	**	**
00400	PH (STANDARD UNITS)	04/30/92-06/04/97	3	6.36	6.303	6.56	5.99	0.084	0.289	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/30/92-06/04/97	3	6.36	6.238	6.56	5.99	0.09	0.3	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/30/92-06/04/97	3	0.437	0.578	1.023	0.275	0.155	0.394	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0025

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	3	0	0.00			1	0	0.00	2	0	0.00
00400	PH	Fresh Chronic	9.	3	0	0.00			1	0	0.00	2	0	0.00
		Other-Lo Lim.	6.5	3	2	0.67			1	0	0.00	2	2	1.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0026

NPS Station ID: RICH0026	LAT/LON: 37.389726/ -77.362781	Agency: 21VASWCB	Date Created: 06/25/94
Location: JAMES RIVER, OFF RICHMOND YATCH BASIN		FIPS State/County: 51087 VIRGINIA/HENRICO	
Station Type: /TYPAB/AMBNT/STREAM		STORET Station ID(s): 2-JMS096.22	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: 02-NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: 2-JAMES		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:			
VIRGINIA STATE WATER CONTROL BOARD	AMBIENT MONITORING	BASIN: 2- JAMES	REGION: 4 PIEDMONT
RIVER: JAMES RIVER	SECTION: 02B	TOPO MAP #: 0137	TOPO MAP NAME: DUTCH GAP, VA

### Parameter Inventory for Station: RICH0026

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	51	26.	26.278	33.9	15.6	26.079	5.107	19.18	22.1	30.7	32.92
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	47	226.	241.553	462.	122.	5995.296	77.429	146.8	179.	304.	348.2
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	50	7.9	8.042	11.8	5.5	1.478	1.216	6.51	7.3	8.7	9.7
00400 PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.59	7.632	8.88	7.02	0.172	0.414	7.138	7.34	7.9	8.148
00400 CONVERTED PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.59	7.479	8.88	7.02	0.195	0.442	7.138	7.34	7.9	8.148
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/14/94-10/26/98	51	0.026	0.033	0.095	0.001	0.001	0.025	0.007	0.013	0.046	0.073
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	101.5	1300.385	16000.	9.	14161488.986	3763.175	12.3	45.	450.	3110.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	2.005	2.171	4.204	0.954	0.693	0.833	1.058	1.653	2.647	3.484
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	148.161								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0026

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00			
00400 PH	Fresh Chronic	9.	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00			
31615 FECAL COLIFORM, MPN	Other-Lo Lim.	6.5	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00			
	Other-Hi Lim.	200.	52	19	0.37	32	11	0.34	5	2	0.40	15	6	0.40			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0026

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	161.5	277.	790.	20.	91132.286	301.881	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	2.165	2.167	2.898	1.301	0.317	0.563	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		146.819									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0026

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	78.	2405.889	16000.	9.	27892724.861	5281.356	9.	42.5	2545.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	1.892	2.349	4.204	0.954	1.117	1.057	0.954	1.628	3.266	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		223.338									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0026

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	355.	3015.083	16000.	20.	37020857.356	6084.477	20.	47.75	1472.5	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	2.516	2.547	4.204	1.301	0.994	0.997	1.301	1.677	3.147	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		352.345									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0026

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	45.	85.	230.	9.	6010.2	77.525	9.	9.	170.	218.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	1.653	1.691	2.362	0.954	0.289	0.538	0.954	0.954	2.23	2.335
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		49.079									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0026

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	94.	552.917	3500.	9.	1232121.538	1110.01	18.3	45.	222.5	3110.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	1.967	2.103	3.544	0.954	0.528	0.726	1.149	1.653	2.343	3.484
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		126.858									

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0027

NPS Station ID: RICH0027  
 Location: JAMES RIVER NEAR DUTCH GAP, VA  
 Station Type: /TYP/A MBNT/ESTURY  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080206  
 RF3 Index: 02080205075100.00  
 Description:

LAT/LON: 37.390559/ -77.363615

Agency: 112WRD  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 02038700  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.71

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 1.80  
 Distance from RF3: 0.02

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0027

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	122	17.	17.045	35.	1.5	89.331	9.451	3.8	9.	26.	29.35
00060 FLOW, STREAM, MEAN DAILY CFS	03/12/74-09/22/76	68	5570.	7828.088	32800.	1020.	40919797.783	6396.858	2199.	3700.	9970.	18630.
00061 FLOW, STREAM, INSTANTANEOUS CFS	08/13/75-02/27/79	57	4900.	9032.807	137000.	680.	349711995.551	18700.588	1300.	2130.	8065.	18000.
00070 TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	119	8.	15.714	300.	1.	878.341	29.637	2.	5.	15.	40.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	121	160.	175.471	430.	50.	4550.701	67.459	108.	127.5	210.	280.
00300 OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	121	8.9	9.465	15.6	4.9	6.305	2.511	6.62	7.4	11.5	13.28
00310 BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	120	1.85	1.924	7.3	0.	1.592	1.262	0.61	1.	2.4	3.48
00335 COD, .025N K2CR2O7 MG/L	03/12/74-02/12/75	12	12.	11.367	21.	0.	48.377	6.955	1.02	4.5	18.	20.7
00340 COD, .25N K2CR2O7 MG/L	06/12/74-02/27/79	108	11.	12.657	50.	0.	74.732	8.645	4.	8.	15.	21.1
00400 PH (STANDARD UNITS)	03/12/74-02/27/79	121	7.1	7.045	8.6	5.5	0.328	0.572	6.42	6.7	7.45	7.6
00400 CONVERTED PH (STANDARD UNITS)	03/12/74-02/27/79	121	7.1	6.645	8.6	5.5	0.489	0.699	6.42	6.7	7.45	7.6
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/12/74-02/27/79	121	0.079	0.226	3.162	0.003	0.204	0.451	0.025	0.036	0.2	0.382
00405 CARBON DIOXIDE (MG/L AS CO2)	03/12/74-12/21/78	20	7.4	32.81	243.	0.3	3910.571	62.535	0.73	3.9	20.5	135.7
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	03/12/74-12/21/78	20	42.5	44.45	59.	33.	51.418	7.171	36.3	39.	50.	56.8
00440 BICARBONATE ION (MG/L AS HC03)	03/12/74-12/21/78	20	51.5	54.2	72.	40.	77.326	8.794	44.3	48.	61.	69.7
00445 CARBONATE ION (MG/L AS CO3)	03/12/74-12/21/78	19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00572 BIOMASS, PERIPHYTON (GRAMS PER SQUARE METER)	09/14/74-03/05/75	3	11.	12.633	20.	6.9	44.903	6.701	**	**	**	**
00573 BIOMASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	03/05/75-03/05/75	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00600 NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	120	0.975	1.004	2.	0.11	0.107	0.327	0.622	0.813	1.2	1.49
00605 NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	114	0.37	0.399	1.2	0.03	0.047	0.217	0.16	0.25	0.493	0.675
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	120	0.205	0.235	0.72	0.005	0.019	0.138	0.1	0.13	0.31	0.43
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	120	0.57	0.603	1.5	0.02	0.077	0.277	0.292	0.43	0.748	0.947
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	120	0.39	0.4	1.3	0.04	0.031	0.175	0.24	0.31	0.478	0.58
00665 PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	120	0.14	0.148	0.31	0.06	0.003	0.054	0.081	0.11	0.168	0.229
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	113	4.5	5.042	13.	1.	6.84	2.615	2.28	2.95	7.	8.52
00916 CALCIUM, TOTAL (MG/L AS CA)	03/12/74-03/12/74	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00927 MAGNESIUM, TOTAL (MG/L AS MG)	03/12/74-03/12/74	1	3.2	3.2	3.2	3.2	0.	0.	**	**	**	**
00929 SODIUM, TOTAL (MG/L AS NA)	06/26/74-06/26/74	1	10	10.	10.	10.	0.	0.	**	**	**	**
00930 SODIUM, DISSOLVED (MG/L AS NA)	03/12/74-03/12/74	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00937 POTASSIUM, TOTAL MG/L AS K)	03/12/74-06/26/74	2	1.7	1.7	1.9	1.5	0.08	0.283	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	03/12/74-12/21/78	20	10.	12.3	33.	5.	46.537	6.822	7.	8.	16.75	21.8
00945 SULFATE, TOTAL (MG/L AS SO4)	03/12/74-12/21/78	20	16.	18.5	43.	10.	60.158	7.756	12.	14.	23.75	27.9
31501 COLIFORM,TOT,MEMBRANE FILTER,IMMED.M-ENDO MED,35C	06/12/74-11/04/76	59	425.	772.153	4300.	18.	8471146.028	920.405	56.	216.	850.	2140.
31501 LOG COLIFORM,TOT,MEMBRANE FILTER,IMMED.M-ENDO MED,	06/12/74-11/04/76	59	2.628	2.615	3.633	1.255	0.278	0.528	1.748	2.334	2.929	3.33
31501 GM COLIFORM,TOT,MEMBRANE FILTER,IMMED.M-ENDO MED,3				411.818								
31616 FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/12/74-10/05/77	88	81.	701.841	35500.	6.5	14422534.486	3797.701	20.	34.5	390.5	717.
31616 LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/12/74-10/05/77	88	1.908	2.054	4.55	0.813	0.459	0.677	1.301	1.538	2.591	2.855
31616 GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			113.179									

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	10/18/77-02/27/79	32	495.	1417.094	6000.	18.	3149740.668	1774.751	32.3	53.25	2475.	4230.
31625	LOG FECAL COLIFORM, MF,M-FC, 0.7 UM	10/18/77-02/27/79	32	2.694	2.61	3.778	1.255	0.686	0.829	1.509	1.71	3.394	3.624
31625	GM FECAL COLIFORM, MF,M-FC, 0.7 UM			GEOMETRIC MEAN =		407.086							
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	118	40.	558.182	15600.	0.5	3248042.387	1802.233	4.95	18.	250.	1384.5
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	118	1.602	1.811	4.193	-0.301	0.796	0.892	0.694	1.255	2.398	3.141
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR			GEOMETRIC MEAN =		64.702							
31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	06/12/74-07/14/76	2	42.	42.	48.	36.	72.	8.485	**	**	**	**
31679	LOG FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,	06/12/74-07/14/76	2	1.619	1.619	1.681	1.556	0.008	0.088	**	**	**	**
31679	GM FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,4			GEOMETRIC MEAN =		41.569							
32226	CHLOROPHYLL B, PERIPHYTON, SPECTRO, MG/M2	09/14/74-09/14/74	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
32228	CHLOROPHYLL A, PERIPHYTON, SPECTRO, MG/M2	09/14/74-09/14/74	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32230	CHLOROPHYLL A (MG/L)	03/12/74-08/09/78	95	0.002	0.007	0.043	0.	0.	0.01	0.	0.	0.012	0.022
32231	CHLOROPHYLL B (MG/L)	03/12/74-08/09/78	95	0.	0.003	0.05	0.	0.	0.008	0.	0.	0.002	0.009
60050	ALGAE, TOTAL (CELLS/ML)	01/15/75-01/15/75	1	810.	810.	810.	810.	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/12/74-02/27/79	113	100.	108.619	227.	0.9	1580.716	39.758	66.4	81.	128.	173.6
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/22/74-05/22/74	1	87.	87.	87.	87.	0.	0.	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	114	1325.	1952.955	22200.	14.9	6716280.517	2591.579	628.5	917.	2085.	3160.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	114	0.14	0.147	0.31	0.	0.003	0.054	0.09	0.11	0.17	0.24
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	06/08/78-06/08/78	1	100.	100.	100.	100.	0.	0.	**	**	**	**
70953	CHLOROPHYLL-A,PHYTOPLANKTON UG/L,CHROMO-FLUORO	04/19/78-02/27/79	19	5.7	9.411	45.1	0.	144.834	12.035	0.	0.	18.2	21.8
70954	CHLOROPHYLL-B,PHYTOPLANKTON UG/L,CHROMO-FLUORO	04/19/78-02/27/79	19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71887	NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	120	4.3	4.448	9.	0.5	2.093	1.447	2.71	3.6	5.1	6.56
80154	SUSP. SEDIMENT CONCENTRATION-EVAP, AT 110C (MG/L)	03/12/74-02/27/79	113	22.	38.469	550.	6.	4469.698	66.856	9.4	14.	33.5	70.6
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	112	296.	1958.589	132000.	25.	155977003.848	12489.075	62.5	137.	747.	1827.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0027

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	119	7	0.06	34	3	0.09	49	4	0.08	36	0	0.00		
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	121	0	0.00	35	0	0.00	50	0	0.00	36	0	0.00		
00400	PH	Marine Chronic	8.5	121	2	0.02	35	1	0.03	50	0	0.00	36	1	0.03		
31501	COLIFORM, TOTAL, MEMBRANE FILTER, IMMED.	Other-Lo Lim.	6.5	121	21	0.17	35	7	0.20	50	5	0.10	36	9	0.25		
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	1000.	59	11	0.19	19	0	0.00	23	4	0.17	17	7	0.41		
31625	FECAL COLIFORM, MF	Other-Hi Lim.	200.	32	21	0.66	6	2	0.33	20	15	0.75	6	4	0.67		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1974 - Station RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	20	19.	17.8	30.	5.	50.8	7.127	7.2	12.	23.75	26.8
00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	20	12.5	18.6	50.	1.	196.779	14.028	4.2	9.25	28.75	44.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	20	160.	171.55	231.	105.	1612.576	40.157	120.	138.75	208.75	229.
00300	OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	20	7.9	8.08	12.2	5.8	3.121	1.767	5.91	6.825	8.875	10.78
00310	BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	20	2.5	2.645	7.3	0.3	2.649	1.628	0.91	1.325	3.1	5.3
00340	COD, 25N K2CR207 MG/L	06/12/74-02/27/79	9	11.	11.556	26.	4.	48.778	6.984	4.	5.5	16.	26.
00400	PH (STANDARD UNITS)	03/12/74-02/27/79	20	6.9	6.85	7.6	5.8	0.174	0.417	6.41	6.525	7.175	7.3
00400	CONVERTED PH (STANDARD UNITS)	03/12/74-02/27/79	20	6.9	6.631	7.6	5.8	0.225	0.474	6.41	6.525	7.175	7.3
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/12/74-02/27/79	20	0.126	0.234	1.585	0.025	0.113	0.337	0.05	0.067	0.3	0.39
00600	NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	20	0.96	0.84	1.2	0.11	0.12	0.346	0.15	0.573	1.1	1.2
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	14	0.41	0.42	0.65	0.16	0.022	0.148	0.2	0.305	0.585	0.63
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	20	0.255	0.295	0.72	0.01	0.033	0.183	0.112	0.173	0.41	0.652
00625	NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	20	0.59	0.517	0.96	0.02	0.1	0.316	0.07	0.145	0.793	0.908
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	20	0.34	0.325	0.54	0.04	0.015	0.122	0.118	0.253	0.42	0.459
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	20	0.14	0.135	0.22	0.065	0.001	0.039	0.073	0.113	0.16	0.18
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	16	3.05	3.45	7.6	2.1	1.833	1.354	2.17	2.5	4.075	5.43
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/12/74-10/05/77	20	96.5	174.7	580.	10.	38124.958	195.256	15.5	31.75	349.	552.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/12/74-10/05/77	20	1.974	1.946	2.763	1.	0.305	0.553	1.189	1.5	2.521	2.741
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	88.284								
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	03/12/74-02/27/79	19	17.	30.737	158.	2.	1944.538	44.097	2.	4.	28.	140.
31673	LOG FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	03/12/74-02/27/79	19	1.23	1.161	2.199	0.301	0.305	0.552	0.301	0.602	1.447	2.146
31673	GM FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR			GEOMETRIC MEAN =	14.5								
32230	CHLOROPHYLL A (MG/L)	03/12/74-08/09/78	16	0.016	0.014	0.034	0.	0.	0.01	0.	0.004	0.021	0.027
32231	CHLOROPHYLL B (MG/L)	03/12/74-08/09/78	16	0.008	0.014	0.05	0.	0.	0.015	0.	0.001	0.028	0.039
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), MG/L	03/12/74-02/27/79	18	105.	104.383	148.	0.9	1066.057	32.651	65.79	93.	126.25	136.3
70302	SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	19	1120.	1397.942	4800.	14.9	1040671.419	1020.133	645.	796.	1810.	2430.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	19	0.14	0.141	0.2	0.	0.002	0.044	0.1	0.12	0.17	0.18
71887	NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	20	4.25	3.73	5.4	0.5	2.343	1.531	0.69	2.55	4.95	5.28
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/12/74-02/27/79	16	26.	33.438	95.	11.	492.263	22.187	13.8	17.75	41.25	77.5
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	16	324.	803.875	4850.	70.	1415882.25	1189.909	93.8	130.75	1046.75	2596.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	27	16.	16.481	30.	5.	71.259	8.442	5.8	9.	25.	30.
00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	25	6.	15.2	60.	2.	268.667	16.391	3.6	5.	22.5	44.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	26	140.	137.962	225.	50.	1734.838	41.651	76.4	108.75	170.	187.4
00300	OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	26	8.95	8.981	13.9	5.7	4.599	2.145	6.18	7.075	10.5	12.17
00310	BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	25	2.	2.052	6.3	0.	2.279	1.51	0.1	0.85	2.65	4.28
00340	COD, 25N K2CR207 MG/L	06/12/74-02/27/79	26	11.	11.577	46.	2.	76.894	8.769	4.	5.5	12.5	21.9
00400	PH (STANDARD UNITS)	03/12/74-02/27/79	26	6.9	6.969	8.2	5.8	0.282	0.531	6.44	6.6	7.3	7.86
00400	CONVERTED PH (STANDARD UNITS)	03/12/74-02/27/79	26	6.9	6.69	8.2	5.8	0.363	0.603	6.44	6.6	7.3	7.86
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/12/74-02/27/79	26	0.126	0.204	1.585	0.006	0.093	0.306	0.014	0.05	0.251	0.372
00600	NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	26	1.	1.087	1.7	0.69	0.094	0.307	0.771	0.833	1.225	1.7
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	26	0.38	0.474	1.1	0.11	0.069	0.263	0.238	0.28	0.58	0.993
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	26	0.225	0.257	0.66	0.1	0.019	0.136	0.114	0.163	0.343	0.457
00625	NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	26	0.65	0.732	1.4	0.39	0.103	0.321	0.427	0.485	0.918	1.3
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	26	0.35	0.353	0.5	0.1	0.007	0.086	0.261	0.3	0.41	0.466
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	26	0.125	0.13	0.27	0.06	0.002	0.046	0.077	0.087	0.16	0.173
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	26	5.	5.562	12.	1.8	7.55	2.748	2.31	3.5	7.7	9.32
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/12/74-10/05/77	26	250.	1805.346	35500.	20.	47687279.435	6905.598	30.2	72.25	645.	1712.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/12/74-10/05/77	26	2.389	2.4	4.55	1.301	0.526	0.725	1.478	1.858	2.807	3.154
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	251.254								
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	03/12/74-02/27/79	26	80.5	874.	15600.	2.	9205265.36	3034.018	5.4	11.5	511.25	1403.5
31673	LOG FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	03/12/74-02/27/79	26	1.898	1.936	4.193	0.301	0.892	0.945	0.725	1.059	2.706	3.147

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR			86.215									
32230	CHLOROPHYLL A (MG/L)	03/12/74-08/09/78	26	0.002	0.004	0.029	0.	0.	0.007	0.	0.	0.007	0.016
32231	CHLOROPHYLL B (MG/L)	03/12/74-08/09/78	26	0.	0.001	0.01	0.	0.	0.002	0.	0.	0.001	0.004
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/12/74-02/27/79	21	84.	91.619	139.	55.	414.948	20.37	63.4	78.5	108.	121.
70302	SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	21	1330.	2173.905	5700.	834.	2128142.99	1458.816	968.4	1165.	2860.	5008.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	21	0.11	0.125	0.19	0.07	0.001	0.029	0.084	0.11	0.15	0.166
71887	NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	26	4.5	4.808	7.6	3.1	1.829	1.352	3.44	3.675	5.5	7.43
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/12/74-02/27/79	26	23.5	64.538	550.	9.	12950.818	113.802	11.1	16.75	58.25	192.9
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	25	505.	1086.24	4610.	153.	1432438.773	1196.845	168.2	207.	1565.	3116.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	23	21.	18.304	32.	2.	90.585	9.518	3.8	11.	28.	28.6
00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	23	10.	13.957	55.	1.	265.225	16.286	1.	2.	15.	51.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	23	150.	164.348	290.	75.	3000.237	54.774	108.8	130.	185.	260.
00300	OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	23	8.8	9.452	13.2	6.9	4.113	2.028	7.2	7.8	11.2	12.76
00310	BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	23	1.6	1.657	4.	0.6	0.695	0.834	0.7	0.9	2.1	2.7
00340	COD, .25N K2CR2O7 MG/L	06/12/74-02/27/79	22	11.	12.273	34.	4.	54.779	7.401	5.3	7.	15.25	25.8
00400	PH (STANDARD UNITS)	03/12/74-02/27/79	23	7.2	7.035	8.6	5.5	0.714	0.845	5.7	6.3	7.6	8.2
00400	CONVERTED PH (STANDARD UNITS)	03/12/74-02/27/79	23	7.2	6.336	8.6	5.5	1.225	1.107	5.7	6.3	7.6	8.2
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/12/74-02/27/79	23	0.063	0.461	3.162	0.003	0.7	0.837	0.012	0.025	0.501	1.995
00600	NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	23	0.9	0.903	1.4	0.59	0.053	0.231	0.604	0.72	1.	1.3
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	23	0.35	0.369	0.7	0.04	0.029	0.17	0.172	0.23	0.5	0.608
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	23	0.15	0.156	0.29	0.05	0.003	0.059	0.08	0.12	0.2	0.246
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	23	0.49	0.525	0.84	0.19	0.031	0.175	0.272	0.4	0.64	0.808
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	23	0.39	0.376	0.58	0.1	0.014	0.117	0.19	0.31	0.45	0.51
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	23	0.13	0.144	0.29	0.06	0.002	0.047	0.1	0.11	0.16	0.204
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	22	4.65	4.886	9.2	1.6	4.733	2.175	2.03	3.075	5.8	8.76
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/12/74-10/05/77	23	112.	443.696	3600.	6.5	688543.062	829.785	16.9	37.	510.	1604.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/12/74-10/05/77	23	2.049	2.138	3.556	0.813	0.501	0.708	1.122	1.568	2.708	3.146
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			137.465									
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	23	37.	320.109	3800.	2.	625502.931	790.887	3.3	20.	320.	740.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	23	1.568	1.773	3.58	0.301	0.72	0.849	0.5	1.301	2.505	2.867
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR			59.283									
32230	CHLOROPHYLL A (MG/L)	03/12/74-08/09/78	23	0.	0.008	0.043	0.	0.	0.013	0.	0.	0.013	0.036
32231	CHLOROPHYLL B (MG/L)	03/12/74-08/09/78	23	0.	0.002	0.026	0.	0.	0.005	0.	0.	0.	0.004
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/12/74-02/27/79	23	94.	97.	171.	37.	1025.364	32.021	59.2	77.	106.	154.
70302	SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	23	1330.	1949.826	7970.	430.	2999804.15	1731.994	493.8	923.	2380.	4538.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	23	0.13	0.132	0.23	0.05	0.002	0.043	0.084	0.1	0.14	0.21
71887	NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	23	4.	3.991	6.1	2.6	1.017	1.009	2.7	3.2	4.4	5.76
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/12/74-02/27/79	22	15.	22.5	107.	7.	531.976	23.065	9.	12.	19.75	60.5
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	22	305.5	1089.727	11800.	25.	739826.684	2719.976	33.2	111.	522.5	4647.8

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### Annual Analysis for 1977 - Station RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	25	17.5	18.46	35.	1.5	129.748	11.391	2.9	7.25	29.25	33.2
00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	24	7.	6.667	15.	1.	13.884	3.726	1.	4.25	8.	12.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	25	200.	216.32	430.	108.	7481.06	86.493	119.6	139.	287.5	330.8
00300	OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	25	9.6	10.032	15.6	4.9	7.669	2.769	7.1	7.6	12.15	14.08

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### Annual Analysis for 1977 - Station RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00310	BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	25	1.9	2.02	5.4	0.4	1.685	1.298	0.62	1.	2.3	4.24
00340	COD, .25N K2CR2O7 MG/L	06/12/74-02/27/79	24	13.	13.708	50.	4.	79.955	8.942	6.	9.	15.	20.
00400	PH (STANDARD UNITS)	03/12/74-02/27/79	25	7.5	7.356	8.4	6.2	0.246	0.496	6.62	7.2	7.6	8.04
00400	CONVERTED PH (STANDARD UNITS)	03/12/74-02/27/79	25	7.5	7.065	8.4	6.2	0.334	0.578	6.62	7.2	7.6	8.04
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/12/74-02/27/79	25	0.032	0.086	0.631	0.004	0.018	0.134	0.011	0.025	0.063	0.246
00600	NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	24	1.05	1.15	2.	0.71	0.136	0.368	0.75	0.903	1.3	1.9
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	24	0.37	0.424	1.2	0.08	0.06	0.245	0.15	0.25	0.588	0.71
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	24	0.275	0.267	0.48	0.05	0.016	0.125	0.085	0.155	0.375	0.435
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	24	0.685	0.692	1.5	0.22	0.07	0.264	0.33	0.535	0.813	0.965
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	24	0.405	0.46	1.3	0.06	0.067	0.258	0.15	0.35	0.518	0.83
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	24	0.16	0.168	0.29	0.09	0.003	0.056	0.105	0.13	0.213	0.265
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	22	5.9	6.395	13.	1.6	10.343	3.216	2.6	3.425	8.025	12.4
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/12/74-10/05/77	19	38.	59.158	320.	7.	5963.251	77.222	18.	24.	52.	220.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/12/74-10/05/77	19	1.58	1.591	2.505	0.845	0.13	0.361	1.255	1.38	1.716	2.342
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		39.011									
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	24	26.5	611.104	9200.	6.5	3901442.478	1975.207	13.5	20.	217.5	2030.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	24	1.423	1.789	3.964	0.813	0.601	0.775	1.105	1.301	2.335	3.062
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =		61.536									
32230	CHLOROPHYLL A (MG/L)	03/12/74-08/09/78	22	0.004	0.007	0.04	0.	0.	0.01	0.	0.	0.011	0.026
32231	CHLOROPHYLL B (MG/L)	03/12/74-08/09/78	22	0.	0.001	0.006	0.	0.	0.002	0.	0.	0.002	0.004
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/12/74-02/27/79	24	120.5	131.333	227.	66.	2302.406	47.983	76.	91.25	177.25	207.5
70302	SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	24	1090.	1217.917	2710.	395.	374988.862	612.363	467.	685.	1687.5	2210.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	24	0.16	0.178	0.31	0.09	0.004	0.066	0.105	0.123	0.24	0.28
71887	NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	24	4.65	5.1	9.	3.1	2.584	1.608	3.35	4.	5.875	8.15
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/12/74-02/27/79	24	17.5	21.375	62.	6.	196.853	14.03	7.5	10.25	28.5	42.5
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	24	140.	330.	2130.	25.	259165.217	509.083	26.	56.5	390.75	1070.

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### Annual Analysis for 1978 - Station RICH0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	23	16.5	16.652	30.	1.5	91.283	9.554	3.2	8.	27.	28.8
00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	23	10.	13.696	65.	2.	179.949	13.414	4.4	6.	15.	29.
00995	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	23	175.	194.	360.	90.	5532.455	74.38	107.	135.	243.	322.2
00300	OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	23	9.9	9.843	14.4	5.7	7.823	2.797	6.22	7.	12.5	13.84
00310	BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	23	1.4	1.474	2.5	0.2	0.356	0.596	0.68	1.	2.	2.22
00340	COD, .25N K2CR2O7 MG/L	06/12/74-02/27/79	23	10.	11.13	23.	0.	33.664	5.802	2.8	8.	15.	21.2
00400	PH (STANDARD UNITS)	03/12/74-02/27/79	23	7.1	6.97	7.9	5.8	0.161	0.402	6.5	6.7	7.1	7.4
00400	CONVERTED PH (STANDARD UNITS)	03/12/74-02/27/79	23	7.1	6.738	7.9	5.8	0.217	0.466	6.5	6.7	7.1	7.4
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/12/74-02/27/79	23	0.079	0.183	1.585	0.013	0.1	0.316	0.04	0.079	0.2	0.316
00600	NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	23	1.	1.008	1.6	0.54	0.086	0.293	0.596	0.76	1.2	1.56
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	23	0.33	0.325	0.58	0.1	0.016	0.126	0.154	0.23	0.41	0.49
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	23	0.2	0.212	0.55	0.01	0.017	0.129	0.076	0.12	0.27	0.414
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	23	0.51	0.537	1.	0.25	0.033	0.18	0.31	0.42	0.69	0.742
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	23	0.47	0.469	0.95	0.04	0.043	0.207	0.204	0.32	0.61	0.768
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	23	0.15	0.163	0.31	0.07	0.005	0.071	0.084	0.1	0.21	0.296
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	23	4.5	4.643	9.4	1.	5.367	2.317	1.76	2.6	6.2	8.2
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	22	205.	619.568	3100.	0.5	988904.674	994.437	10.4	36.	530.	2720.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	22	2.312	2.125	3.491	-0.301	0.878	0.937	0.898	1.556	2.688	3.432
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =		133.394									
32230	CHLOROPHYLL A (MG/L)	03/12/74-08/09/78	8	0.001	0.002	0.009	0.	0.	0.003	**	**	**	**
32231	CHLOROPHYLL B (MG/L)	03/12/74-08/09/78	8	0.001	0.001	0.003	0.	0.	0.001	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/12/74-02/27/79	23	111.	120.87	225.	56.	2024.573	44.995	65.	90.	147.	188.4
70302	SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	23	1500.	2044.696	15200.	598.	8616344.13	2935.361	646.8	840.	1770.	2720.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	23	0.15	0.165	0.31	0.08	0.004	0.062	0.09	0.12	0.2	0.256
71887	NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	23	4.4	4.461	7.3	2.4	1.751	1.323	2.64	3.4	5.2	7.02

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### Annual Analysis for 1978 - Station RICH0027

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
80154 SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/12/74-02/27/79	21	25.	33.286	141.	9.	964.714	31.06	9.6	19.5	32.	88.8
80155 SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	21	279.	608.	5030.	77.	1107167.7	1052.22	80.4	143.5	732.	878.8

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### Annual Analysis for 1979 - Station RICH0027

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/12/74-02/27/79	4	3.5	3.25	4.5	1.5	1.583	1.258	**	**	**	**
00070 TURBIDITY, (JACKSON CANDLE UNITS)	03/12/74-02/27/79	4	8.5	80.5	300.	5.	21417.667	146.348	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/12/74-02/27/79	4	142.5	141.	204.	75.	3570.	59.749	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	03/12/74-02/27/79	4	13.9	13.9	14.5	13.3	0.407	0.638	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	03/12/74-02/27/79	4	1.1	1.05	1.4	0.6	0.17	0.412	**	**	**	**
00340 COD, 25N K2CR2O7 MG/L	06/12/74-02/27/79	4	26.5	26.75	46.	8.	344.917	18.572	**	**	**	**
00400 PH (STANDARD UNITS)	03/12/74-02/27/79	4	7.05	7.075	7.5	6.7	0.109	0.33	**	**	**	**
00400 CONVERTED PH (STANDARD UNITS)	03/12/74-02/27/79	4	7.047	6.989	7.5	6.7	0.119	0.345	**	**	**	**
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/12/74-02/27/79	4	0.09	0.103	0.2	0.032	0.005	0.071	**	**	**	**
00600 NITROGEN, TOTAL (MG/L AS N)	03/12/74-02/27/79	4	0.895	0.968	1.5	0.58	0.154	0.393	**	**	**	**
00605 NITROGEN, ORGANIC, TOTAL (MG/L AS N)	06/12/74-02/27/79	4	0.095	0.295	0.96	0.03	0.198	0.445	**	**	**	**
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/12/74-02/27/79	4	0.165	0.199	0.46	0.005	0.036	0.191	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/12/74-02/27/79	4	0.4	0.493	1.1	0.07	0.194	0.44	**	**	**	**
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/12/74-02/27/79	4	0.495	0.483	0.51	0.43	0.001	0.036	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	03/12/74-02/27/79	4	0.13	0.148	0.24	0.09	0.004	0.065	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	03/12/74-02/27/79	4	2.6	3.725	7.2	2.5	5.376	2.319	**	**	**	**
31673 FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	4	1390.	1724.5	4100.	18.	3606374.333	1899.046	**	**	**	**
31673 LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/12/74-02/27/79	4	2.98	2.707	3.613	1.255	1.132	1.064	**	**	**	**
31673 GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =		509.346									
70300 RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/12/74-02/27/79	4	71.	77.	106.	60.	411.333	20.281	**	**	**	**
70302 SOLIDS, DISSOLVED-TONS PER DAY	03/12/74-02/27/79	4	2975.	7330.	22200.	1170.	99258600.	9962.861	**	**	**	**
70303 SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/12/74-02/27/79	4	0.095	0.103	0.14	0.08	0.001	0.026	**	**	**	**
71887 NITROGEN, TOTAL, AS NO3 - MG/L	03/12/74-02/27/79	4	3.95	4.325	6.8	2.6	3.262	1.806	**	**	**	**
80154 SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/12/74-02/27/79	4	30.5	106.75	358.	8.	28182.25	167.876	**	**	**	**
80155 SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/12/74-02/27/79	4	1296.5	33670.5	132000.	89.	4297617869.667	65556.219	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0028

NPS Station ID: RICH0028  
 Location: SALEM RD. ABOVE CENTRALIA STP  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206008003.32  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: PROCTORS CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.393059/ -77.483892

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-PCT006.81 /VA2-07-X0189/VA2-4X0189  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 3.80

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 29.30  
 Distance from RF3: 0.03

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0028

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-01/10/74	7	12.2	14.2	23.9	2.2	63.803	7.988	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/18/73-01/10/74	8	8.7	8.725	11.	6.2	3.016	1.737	**	**	**	**
00400	PH (STANDARD UNITS)	04/18/73-01/10/74	8	6.	6.	6.5	5.	0.286	0.535	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/18/73-01/10/74	8	6.	5.67	6.5	5.	0.41	0.641	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	04/18/73-01/10/74	8	1.	2.139	10.	0.316	10.957	3.31	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-01/10/74	8 ##	0.05	0.194	1.099	0.05	0.134	0.367	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-01/10/74	8 ##	0.005	0.011	0.05	0.005	0.	0.016	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/18/73-01/10/74	8	0.415	0.406	0.6	0.1	0.032	0.178	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-01/10/74	8	0.5	0.825	3.	0.3	0.805	0.897	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-08/04/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-08/04/73	1	1.	1.	1.	1.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-12/12/73	3 ##	5.	6.667	10.	5.	8.333	2.887	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-12/12/73	3 ##	5.	6.667	10.	5.	8.333	2.887	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-12/12/73	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-08/04/73	2 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-12/12/73	3	30.	56.667	130.	10.	4133.333	64.291	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-01/10/74	8 ##	50.	68.75	100.	50.	669.643	25.877	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-01/10/74	8 ##	1.699	1.812	2.	1.699	0.024	0.156	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	64.842								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/18/73-01/10/74	8 ##	0.075	0.213	0.9	0.05	0.086	0.292	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-01/10/74	8	0.1	0.225	0.9	0.05	0.081	0.285	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	05/29/73-12/12/73	3 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0028

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	-----7/01-10/14-----	-----10/15-3/15-----	-----3/16-6/30-----	n/a-----
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	8	0.00	Obs 2 Exceed 0 Prop. 0.00	Obs 4 Exceed 0 Prop. 0.00	Obs 2 Exceed 0 Prop. 0.00	Obs Exceed Prop.

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0028

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs
00400 PH	Fresh Chronic	9.	8	0	0.00	2	0	0.00	4	0	0.00	2	0	0.00	
	Other-Lo Lim.	6.5	8	8	1.00	2	2	1.00	4	4	1.00	2	2	1.00	
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	8	0	0.00	2	0	0.00	4	0	0.00	2	0	0.00	
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	8	0	0.00	2	0	0.00	4	0	0.00	2	0	0.00	
01002 ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00	1	0	0.00							
	Drinking Water	50.	1	0	0.00	1	0	0.00							
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00	1	0	0.00							
	Drinking Water	5.	1	0	0.00	1	0	0.00							
01034 CHROMIUM, TOTAL	Drinking Water	100.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00	
01042 COPPER, TOTAL	Fresh Acute	18.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00	
	Drinking Water	1300.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00	
01051 LEAD, TOTAL	Fresh Acute	82.	2	0	0.00	1	0	0.00	1	0	0.00				
	Drinking Water	15.	2	0	0.00	1	0	0.00	1	0	0.00				
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	2	0	0.00	1	0	0.00				1	0	0.00	
	Drinking Water	100.	2	0	0.00	1	0	0.00				1	0	0.00	
01092 ZINC, TOTAL	Fresh Acute	120.	3	1	0.33	1	0	0.00	1	1	1.00	1	0	0.00	
	Drinking Water	5000.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00	
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	8	0	0.00	2	0	0.00	4	0	0.00	2	0	0.00	
71900 MERCURY, TOTAL	Fresh Acute	2.4	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00	
	Drinking Water	2.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0029

NPS Station ID: RICH0029  
 Location: CENTRALIA RD. BRIDGE BELOW STP  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206008001.70  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: PROCTORS CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.393226/ -77.458031

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-PCT004.92 /VA2-07-X0188/VA2-4X0188  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.95

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 22.60  
 Distance from RF3: 0.02

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0029

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	61	16.	14.61	30.	0.7	59.323	7.702	2.36	8.9	21.1
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	62	8.45	8.458	15.4	3.9	7.024	2.65	4.86	6.4	10.2
00310	BOD, 5 DAY, 20 DEG C MG/L	05/17/74-05/17/74	1	3.	3.	3.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	04/18/73-06/21/79	61	6.5	6.386	7.5	4.5	0.359	0.599	5.54	6.	6.7
00400	CONVERTED PH (STANDARD UNITS)	04/18/73-06/21/79	61	6.5	5.848	7.5	4.5	0.653	0.808	5.54	6.	6.7
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/18/73-06/21/79	61	0.316	1.418	31.623	0.032	18.794	4.335	0.084	0.2	1.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	59	0.2	0.532	9.5	0.05	1.854	1.362	0.05	0.05	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	60 ##	0.005	0.051	1.449	0.005	0.036	0.189	0.005	0.005	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/18/73-02/02/79	47	0.24	0.636	3.549	0.005	0.73	0.855	0.037	0.09	0.8
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	60	0.8	2.108	35.09	0.05	24.439	4.944	0.3	0.425	1.549
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	12	0.11	0.5	3.5	0.025	1.058	1.029	0.025	0.036	0.208
00940	CHLORIDE, TOTAL IN WATER MG/L	06/15/76-06/15/76	1	52.	52.	52.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3 ##	1.	1.167	2.	0.5	0.583	0.764	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4 ##	5.	5.125	5.5	5.	0.063	0.25	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-11/17/77	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-11/17/77	7 ##	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/17/77-11/17/77	1	30.	30.	30.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-06/23/77	5 ##	5.	5.2	10.	1.	14.7	3.834	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	6 ##	50.	50.	50.	50.	0.	0.	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-11/17/77	7	5.	11.286	30.	4.	99.905	9.995	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	57 ##	50.	174.561	1300.	50.	81260.965	285.063	50.	50.	100.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	57 ##	1.699	1.962	3.114	1.699	0.173	0.416	1.699	1.699	2.
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	91.65							
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	1	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	60	0.2	0.779	10.	0.05	2.266	1.505	0.05	0.05	0.875
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	60	0.105	0.532	5.5	0.005	0.815	0.903	0.01	0.05	0.6
71900	MERCURY, TOTAL (UG/L AS HG)	05/29/73-11/17/77	7 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0029

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	62	2	0.03	20	2	0.10	22	0	0.00	20	0	0.00	
00400 PH	Fresh Chronic	9.	61	0	0.00	20	0	0.00	22	0	0.00	19	0	0.00	
00615 NITRITE NITROGEN, TOTAL AS N	Other-Lo Lim.	6.5	61	45	0.74	20	16	0.80	22	17	0.77	19	12	0.63	
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	1.	60	1	0.02	20	1	0.05	21	0	0.00	19	0	0.00	
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	47	0	0.00	18	0	0.00	16	0	0.00	13	0	0.00	
00940 CHLORIDE, TOTAL IN WATER	Drinking Water	10.	12	0	0.00	2	0	0.00	4	0	0.00	6	0	0.00	
	Fresh Acute	860.	1	0	0.00							1	0	0.00	
	Drinking Water	250.	1	0	0.00							1	0	0.00	
01002 ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00	1	0	0.00				2	0	0.00	
	Drinking Water	50.	3	0	0.00	1	0	0.00				2	0	0.00	
01027 CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00										
	Drinking Water	5.	0 &	0	0.00										
01034 CHROMIUM, TOTAL	Drinking Water	100.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
01042 COPPER, TOTAL	Fresh Acute	18.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
01051 LEAD, TOTAL	Drinking Water	1300.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
	Fresh Acute	82.	5	0	0.00	1	0	0.00	1	0	0.00	3	0	0.00	
01065 NICKEL, DISSOLVED	Drinking Water	15.	5	0	0.00	1	0	0.00	1	0	0.00	3	0	0.00	
	Fresh Acute	1400.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00	
	Drinking Water	100.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00	
01092 ZINC, TOTAL	Fresh Acute	120.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
	Drinking Water	5000.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	57	13	0.23	18	7	0.39	20	2	0.10	19	4	0.21	
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00							
71900 MERCURY, TOTAL	Fresh Acute	2.4	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
	Drinking Water	2.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1973 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	7	20.	15.957	23.9	2.2	61.823	7.863	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	8	8.1	8.7	14.	6.4	6.137	2.477	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	8	0.25	0.275	0.9	0.05	0.076	0.275	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	8##	0.005	0.014	0.05	0.005	0.	0.017	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	8	0.9	1.175	2.	0.7	0.285	0.534	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	8##	50.	81.25	200.	50.	2812.5	53.033	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	8##	1.699	1.849	2.301	1.699	0.052	0.228	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	70.711								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	8	0.45	0.575	1.4	0.05	0.29	0.539	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	8	0.35	0.425	1.	0.1	0.119	0.345	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	11	11.1	13.682	23.9	5.6	48.748	6.982	5.82	7.8	22.2	23.78
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	11	9.	8.327	11.8	4.4	7.856	2.803	4.48	6.	11.	11.76
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	10	0.2	0.55	2.699	0.1	0.727	0.852	0.1	0.1	0.65	2.569
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	11##	0.005	0.012	0.04	0.005	0.	0.011	0.005	0.005	0.02	0.036
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	11	1.099	1.518	4.	0.4	1.374	1.172	0.42	0.6	2.399	3.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	9##	50.	83.333	300.	50.	6875.	82.916	50.	50.	75.	300.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	9##	1.699	1.819	2.477	1.699	0.071	0.266	1.699	1.699	1.849	2.477
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	65.899								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	11	0.3	0.582	1.6	0.05	0.355	0.596	0.05	0.1	1.1	1.58
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	11	0.3	0.559	1.599	0.05	0.368	0.607	0.05	0.05	1.099	1.579

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	12	15.	14.408	22.2	5.	28.999	5.385	5.84	9.45	18.625	21.72
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	12	8.8	8.55	11.	5.2	3.666	1.915	5.68	6.85	10.2	11.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	10	0.3	0.365	1.	0.05	0.072	0.269	0.055	0.175	0.5	0.95
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	10	0.01	0.014	0.05	0.005	0.	0.014	0.005	0.005	0.02	0.047
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	10	0.95	1.19	4.299	0.4	1.289	1.135	0.41	0.5	1.174	4.009
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	11##	50.	190.909	1300.	50.	140909.091	375.379	50.	50.	100.	1100.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	11##	1.699	1.926	3.114	1.699	0.213	0.462	1.699	1.699	2.	2.987
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	84.277								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	10	0.3	0.415	1.7	0.05	0.223	0.473	0.055	0.175	0.425	1.58
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	10	0.135	0.277	1.199	0.05	0.122	0.35	0.05	0.088	0.323	1.127

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	8	19.45	18.55	30.	3.9	67.82	8.235	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	8	7.1	7.187	9.9	4.	5.51	2.347	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	8	0.35	1.975	9.5	0.1	10.893	3.3	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	8	0.12	0.277	1.449	0.01	0.23	0.48	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	8	2.949	4.66	13.79	0.2	26.853	5.182	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	7	100.	307.143	1000.	50.	127857.143	357.571	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	7	2.	2.2	3.	1.699	0.307	0.554	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	158.382							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	8	2.2	2.831	10.	0.05	10.636	3.261	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	8	0.92	1.464	5.5	0.005	3.29	1.814	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	11	17.	12.864	27.	1.	94.205	9.706	1.	1.	19.	26.7
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	11	8.7	8.591	13.6	3.9	10.137	3.184	4.12	5.1	11.	13.44
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	11	0.1	0.327	1.899	0.05	0.291	0.539	0.05	0.05	0.4	1.599
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	11 ##	0.005	0.025	0.09	0.005	0.001	0.031	0.005	0.005	0.05	0.086
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	11	0.9	4.272	35.09	0.2	106.656	10.327	0.22	0.3	1.299	29.172
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	11 ##	50.	145.455	700.	50.	37227.273	192.944	50.	50.	200.	600.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	11 ##	1.699	1.967	2.845	1.699	0.143	0.378	1.699	1.699	2.301	2.736
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	92.76							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	11	0.1	0.741	2.8	0.05	0.973	0.986	0.05	0.05	1.8	2.64
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	11	0.12	0.671	2.799	0.005	0.861	0.928	0.01	0.04	1.5	2.579

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	9	16.	15.8	25.	0.7	57.373	7.574	0.7	11.25	22.5	25.
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	9	7.7	8.4	15.4	4.8	10.725	3.275	4.8	6.	10.2	15.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	9 ##	0.05	0.056	0.1	0.05	0.017	0.017	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	9 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.008	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	9	0.4	0.372	0.6	0.05	0.033	0.182	0.05	0.25	0.55	0.6
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	9 ##	50.	150.	700.	50.	45000.	212.132	50.	50.	150.	700.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	9 ##	1.699	1.96	2.845	1.699	0.155	0.394	1.699	1.699	2.151	2.845
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	91.224							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	9 ##	0.05	0.072	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	9	0.03	0.049	0.13	0.005	0.002	0.048	0.005	0.01	0.1	0.13

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	3	3.	8.	19.	2.	91.	9.539	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	3	11.7	11.	12.5	8.8	3.79	1.947	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	3 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	3 ##	0.005	0.037	0.1	0.005	0.003	0.055	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	3	0.4	0.3	0.4	0.1	0.03	0.173	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	2 ##	675.	675.	1300.	50.	781250.	883.883	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	04/18/73-06/21/79	2 ##	2.406	2.406	3.114	1.699	1.001	1.001	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	254.951							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	3 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	3 ##	0.005	0.02	0.05	0.005	0.001	0.026	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	20	22.1	21.405	27.	11.1	14.872	3.856	15.28	18.875	23.9	25.59
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	20	6.65	6.46	9.2	3.9	2.124	1.457	4.08	5.25	7.15	8.9
00400	PH (STANDARD UNITS)	04/18/73-06/21/79	20	6.4	6.33	7.5	5.	0.29	0.538	5.73	6.	6.5	7.09
00400	CONVERTED PH (STANDARD UNITS)	04/18/73-06/21/79	20	6.389	5.974	7.5	5.	0.423	0.65	5.73	6.	6.5	7.09
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	04/18/73-06/21/79	20	0.409	1.061	10.	0.032	4.652	2.157	0.081	0.316	1.	1.896
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	19	0.1	0.668	9.5	0.05	4.591	2.143	0.05	0.1	0.3	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	20	0.015	0.113	1.449	0.005	0.103	0.321	0.005	0.005	0.08	0.235
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	20	1.05	1.914	13.79	0.3	9.009	3.002	0.41	0.525	1.774	4.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	18	100.	272.222	1300.	50.	136241.83	369.11	50.	50.	350.	1030.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	18	2.	2.129	3.114	1.699	0.252	0.502	1.699	1.699	2.533	3.011
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				134.706								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	20	0.55	1.333	10.	0.05	5.011	2.239	0.1	0.3	1.4	2.89
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	20	0.445	0.972	5.5	0.01	1.721	1.312	0.054	0.14	1.4	2.719

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	22	6.9	6.841	17.	0.7	22.09	4.7	1.	2.15	10.725	12.97
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	22	10.55	10.577	15.4	6.	5.22	2.285	7.36	8.975	11.975	13.88
00400	PH (STANDARD UNITS)	04/18/73-06/21/79	22	6.45	6.318	7.5	4.5	0.51	0.714	5.5	6.	6.625	7.44
00400	CONVERTED PH (STANDARD UNITS)	04/18/73-06/21/79	22	6.447	5.65	7.5	4.5	0.977	0.989	5.5	6.	6.625	7.44
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	04/18/73-06/21/79	22	0.357	2.237	31.623	0.032	44.091	6.64	0.037	0.262	1.	3.162
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	21	0.2	0.331	2.699	0.05	0.337	0.58	0.05	0.05	0.3	0.82
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	21 ##	0.005	0.013	0.1	0.005	0.001	0.022	0.005	0.005	0.008	0.044
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	21	0.7	2.447	35.09	0.1	56.658	7.527	0.2	0.3	0.95	3.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	20 ##	50.	77.5	300.	50.	4072.368	63.815	50.	50.	87.5	190.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	20 ##	1.699	1.813	2.477	1.699	0.052	0.227	1.699	1.699	1.925	2.271
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				65.033								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	21	0.1	0.286	1.6	0.05	0.229	0.479	0.05	0.05	0.2	1.36
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	21	0.05	0.212	1.599	0.005	0.158	0.397	0.005	0.025	0.185	0.92

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0029

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/29/73-06/21/79	19	17.	16.453	30.	6.7	27.616	5.255	8.9	12.8	19.	22.2
00300	OXYGEN, DISSOLVED MG/L	04/18/73-06/21/79	20	8.45	8.125	11.5	4.4	5.138	2.267	4.47	6.1	10.2	10.96
00400	PH (STANDARD UNITS)	04/18/73-06/21/79	19	6.5	6.524	7.5	5.	0.267	0.517	6.	6.4	6.9	7.
00400	CONVERTED PH (STANDARD UNITS)	04/18/73-06/21/79	19	6.5	6.074	7.5	5.	0.481	0.693	6.	6.4	6.9	7.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	04/18/73-06/21/79	19	0.316	0.844	10.	0.032	4.987	2.233	0.1	0.126	0.398	1.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/18/73-06/21/79	19	0.2	0.618	3.899	0.05	0.936	0.967	0.05	0.05	1.	1.899
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/18/73-06/21/79	19	0.01	0.027	0.15	0.005	0.001	0.036	0.005	0.005	0.04	0.07
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-06/21/79	19	0.8	1.939	11.19	0.05	7.438	2.727	0.3	0.4	2.399	5.5
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	19 ##	50.	184.211	1300.	50.	99736.842	315.811	50.	50.	100.	700.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/18/73-06/21/79	19 ##	1.699	1.961	3.114	1.699	0.193	0.439	1.699	1.699	2.	2.845
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				91.309								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/18/73-06/21/79	19	0.2	0.742	4.4	0.05	1.256	1.121	0.05	0.05	1.6	2.
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/18/73-06/21/79	19	0.1	0.422	1.699	0.005	0.331	0.575	0.005	0.05	0.6	1.5

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0030

NPS Station ID: RICH0030  
 Location: CREWES CHANNEL, RT. 5 BRIDGE  
 Station Type: /TYPAB/AMBN/TSTREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: CREWES CHANNEL SECTION: 07 TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.396115/ -77.254726

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-CCH000.54  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	1	5.9	5.9	5.9	5.9	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	1	105.	105.	105.	105.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.24	6.24	6.24	6.24	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.24	6.24	6.24	6.24	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/09/94-12/09/94	1	0.575	0.575	0.575	0.575	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0030

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00			1	0	0.00			
00400	PH	Fresh Chronic	9.	1	0	0.00			1	0	0.00			
		Other-Lo Lim.	6.5	1	1	1.00			1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0031

NPS Station ID: RICH0031  
Location: VIMS STATION J76 - JAMES RIVER  
Station Type: /TYP/A/AMBNT/STREAM  
RMI-Indexes:  
RMI-Miles:  
HUC: 02080206  
Major Basin: NORTH ATLANTIC  
Minor Basin: JAMES RIVER  
RF1 Index: 02080206045  
RF3 Index: 02080206012500.00  
Description:

LAT/LON: 37.400559/ -77.385004

Agency: CHESBAY  
FIPS State/County: 51087 VIRGINIA/HENRICO  
STORET Station ID(s): XPL4069  
Within Park Boundary: No

Date Created: 01/29/83

Depth of Water: 0  
Elevation: 0  
RF1 Mile Point: 9.720  
RF3 Mile Point: 5.93

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 0.00  
Distance from RF3: 0.04

On/Off RF1: ON  
On/Off RF3:

## Parameter Inventory for Station: RICH0031

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0032

NPS Station ID: RICH0032  
 Location: BUOY 157  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206045  
 RF3 Index: 02080206004508.68  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA  
 THIS STATION IS ALSO USED FOR SURVEY 845101

LAT/LON: 37.402948/ -77.391948

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-JMS099.30 /VA2-02-X0137/VA2-4X0137  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 10.150  
 RF3 Mile Point: 8.80

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.04

On/Off RF1: OFF  
 On/Off RF3:

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	1131	20.1	18.67	33.1	1.5	71.137	8.434	6.6	10.5	26.6	29.
00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-10/05/93	14	5.2	18.693	130.	1.	1127.755	33.582	2.1	3.875	22.	82.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	83	7.7	13.324	209.	2.	620.336	24.907	4.2	6.3	10.9	21.48
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	204	1.	1.003	10.15	0.1	0.575	0.758	0.4	0.7	1.2	1.4
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	1070	190.	210.872	462.	70.	7258.879	85.199	111.	145.	270.	343.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	102	183.5	198.284	514.	21.	5592.661	74.784	116.3	144.25	244.25	294.1
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	932	0.	0.003	0.2	0.	0.001	0.023	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	1047	8.4	8.945	14.4	2.1	5.396	2.323	6.3	7.1	11.	12.3
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	117	7.3	7.494	13.	1.6	5.044	2.246	4.16	6.2	8.7	11.12
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	114	1.	1.489	6.8	0.5	1.143	1.069	0.5	1.	2.	2.75
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	89	10.	10.77	27.	2.5	26.978	5.194	5.	7.	14.	18.
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	332	7.5	7.523	9.22	2.2	0.258	0.508	7.012	7.27	7.788	8.055
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	332	7.5	4.72	9.22	2.2	8.138	2.853	7.012	7.27	7.788	8.055
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	332	0.032	19.047	6309.573	0.001	119910.174	346.28	0.009	0.016	0.054	0.097
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	74	7.3	7.28	8.	6.1	0.122	0.35	6.75	7.1	7.525	7.7
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	74	7.3	7.117	8.	6.1	0.149	0.386	6.75	7.1	7.525	7.7
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	74	0.05	0.076	0.794	0.01	0.01	0.1	0.02	0.03	0.079	0.179
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	03/20/69-12/15/98	75	49.	49.613	79.	27.	166.565	12.906	33.	40.	59.	69.
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/20/83-10/03/83	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00480	SALINITY - PARTS PER THOUSAND	06/28/83-06/28/83	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	44	136.5	137.25	221.	63.	1150.703	33.922	96.	112.75	159.	179.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	44	34.5	39.455	92.	10.	284.161	16.857	19.	29.25	46.75	66.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	44	101.	97.795	176.	19.	994.911	31.542	55.5	81.	120.75	136.
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-10/03/83	3	209.	200.333	221.	171.	681.333	26.102	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	209	10.	15.789	213.	0.5	757.898	27.53	5.	7.	15.	23.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	209	2.	3.447	23.	0.	13.615	3.69	1.	1.5	4.	6.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	206	7.	12.51	193.	0.	620.941	24.919	3.	5.	11.	18.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	207	0.21	0.29	1.3	0.004	0.068	0.26	0.04	0.095	0.4	0.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/69-06/01/95	80	0.215	0.285	0.9	0.03	0.033	0.182	0.1	0.175	0.4	0.518
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	212	0.01	0.026	0.26	0.002	0.002	0.039	0.004	0.005	0.03	0.076
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	79	0.01	0.032	0.9	0.005	0.01	0.101	0.005	0.01	0.02	0.04

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## Parameter Inventory for Station: RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	208	0.29	0.289	0.97	0.002	0.019	0.137	0.119	0.21	0.37	0.46
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	79	0.35	0.393	1.649	0.01	0.083	0.289	0.09	0.16	0.52	0.8
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	09/20/83-10/03/83	2	0.65	0.65	0.7	0.6	0.005	0.071	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	232	0.6	0.704	3.599	0.1	0.163	0.404	0.3	0.4	0.845	1.2
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/20/83-12/15/98	36	0.35	0.368	1.	0.04	0.038	0.195	0.2	0.2	0.4	0.66
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	03/20/69-10/02/69	3	0.32	0.277	0.34	0.17	0.009	0.093	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	180	0.13	0.243	12.	0.04	0.793	0.891	0.06	0.09	0.23	0.33
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	172	0.08	0.122	0.78	0.02	0.012	0.11	0.03	0.04	0.178	0.27
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	09/20/83-10/03/83	2	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	225	0.057	0.098	0.42	0.001	0.009	0.096	0.02	0.03	0.14	0.26
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	234	4.2	4.658	14.7	0.5	3.509	1.873	2.85	3.4	5.7	7.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	69	64.	65.594	126.	0.	425.921	20.638	42.	53.5	77.	90.
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	95	11.	13.532	39.	2.5	63.956	7.997	5.	8.	19.	25.2
00945	SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	62	18.	22.	58.	0.03	151.519	12.309	11.	13.	30.25	40.5
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	129	7.3	6.975	10.4	2.5	3.159	1.777	4.3	5.9	8.05	9.
01002	ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	5 ##	1.	1.5	2.5	0.5	0.875	0.935	**	**	**	**
01027	CADMUIM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	7 ##	5.	4.357	5.	0.5	2.893	1.701	**	**	**	**
01029	CHROMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/22/93-06/22/93	1	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	15 ##	5.	5.133	10.	0.5	9.374	3.062	0.5	5.	5.	10.
01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	15 ##	5.	12.333	50.	5.	195.952	13.998	5.	5.	10.	44.
01051	LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	13 ##	5.	5.962	19.	0.5	25.603	5.06	0.7	2.	9.5	15.4
01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	1	80.	80.	80.	80.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	4 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	4 ##	22.5	25.	50.	5.	550.	23.452	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	15 ##	5.	16.	60.	5.	311.429	17.647	5.	5.	20.	54.
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	80	7300.	7126.963	12800.	8.	6130979.581	2476.081	4120.	5500.	8900.	9900.
31505	COLIFORM, TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	13	11000.	65686.923	430000.	30.16449587639.744	128255.946	78.	1125.	68000.	354000.	
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	13	4.041	3.82	5.633	1.477	1.484	1.218	1.757	3.026	4.801	5.532
31506	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)												
31506	COLIFORM,TOT,MPN, CONFIRMED TEST , TUBE CONFIG.	09/20/83-07/08/86	28	930.	13677.286	110000.	28.	587447656.878	24237.32	87.7	230.	24000.	46000.
31506	LOG COLIFORM,TOT,MPN, CONFIRMED TEST , TUBE CONFIG.	09/20/83-07/08/86	28	2.968	3.228	5.041	1.447	1.149	1.072	1.932	2.362	4.38	4.663
31614	GEOMETRIC MEAN =												
31614	FECAL, COLIFORM,MPN,TUBE CONFIGURATION												
31614	LOG FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	4	132.5	130.5	240.	17.	9231.	96.078	**	**	**	**
31614	GM FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	4	2.104	1.955	2.38	1.23	0.261	0.511	**	**	**	**
31615	GEOMETRIC MEAN =												
31615	FECAL, COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	107	140.	1358.374	16000.	9.	12349907.953	3514.244	19.6	40.	700.	3500.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	107	2.146	2.258	4.204	0.954	0.757	0.87	1.292	1.602	2.845	3.544
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)												
31616	GEOMETRIC MEAN =												
31616	FECAL, COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	99	200.	2029.01	80000.	4.	72060806.561	8488.864	40.	50.	930.	4300.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	99	2.301	2.359	4.903	0.602	0.713	0.845	1.602	1.699	2.968	3.633
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C												
32209	GEOMETRIC MEAN =												
32218	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/30/83-10/03/83	3	10.3	13.8	23.	8.1	64.69	8.043	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/30/83-10/03/83	3	7.6	6.467	9.4	2.4	13.213	3.635	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	06/13/71-06/13/71	1	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
39630	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
49567	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	0.	**	**	**	**
49569	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	06/13/71-06/13/71	1	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
49570	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
49571	NITROGEN PARTICULATE, FIELD FILT.,SUSP.,WTR MG/L	03/23/95-12/15/98	43	0.656	0.903	5.098	0.045	0.765	0.874	0.324	0.499	1.011	1.577
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	43	0.082	0.118	0.525	0.024	0.009	0.097	0.039	0.064	0.155	0.253
49572	PHOSPHOROUS TOTAL, FIELD FILTERED, DISSLV'D,WTR MG/L	03/23/95-12/15/98	45	0.546	0.553	0.902	0.059	0.034	0.184	0.307	0.456	0.683	0.793
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-10/03/83	3	0.1	0.1	0.2	0.	0.01	0.1	**	**	0.055	0.081
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	50	0.1	0.123	0.7	0.05	0.012	0.109	0.05	0.05	0.163	0.2
70507	PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	04/21/70-06/01/95	61	0.06	0.081	0.29	0.01	0.003	0.053	0.03	0.045	0.1	0.168
71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	15 ##	0.25	0.223	0.25	0.15	0.002	0.046	0.15	0.15	0.25	0.25

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

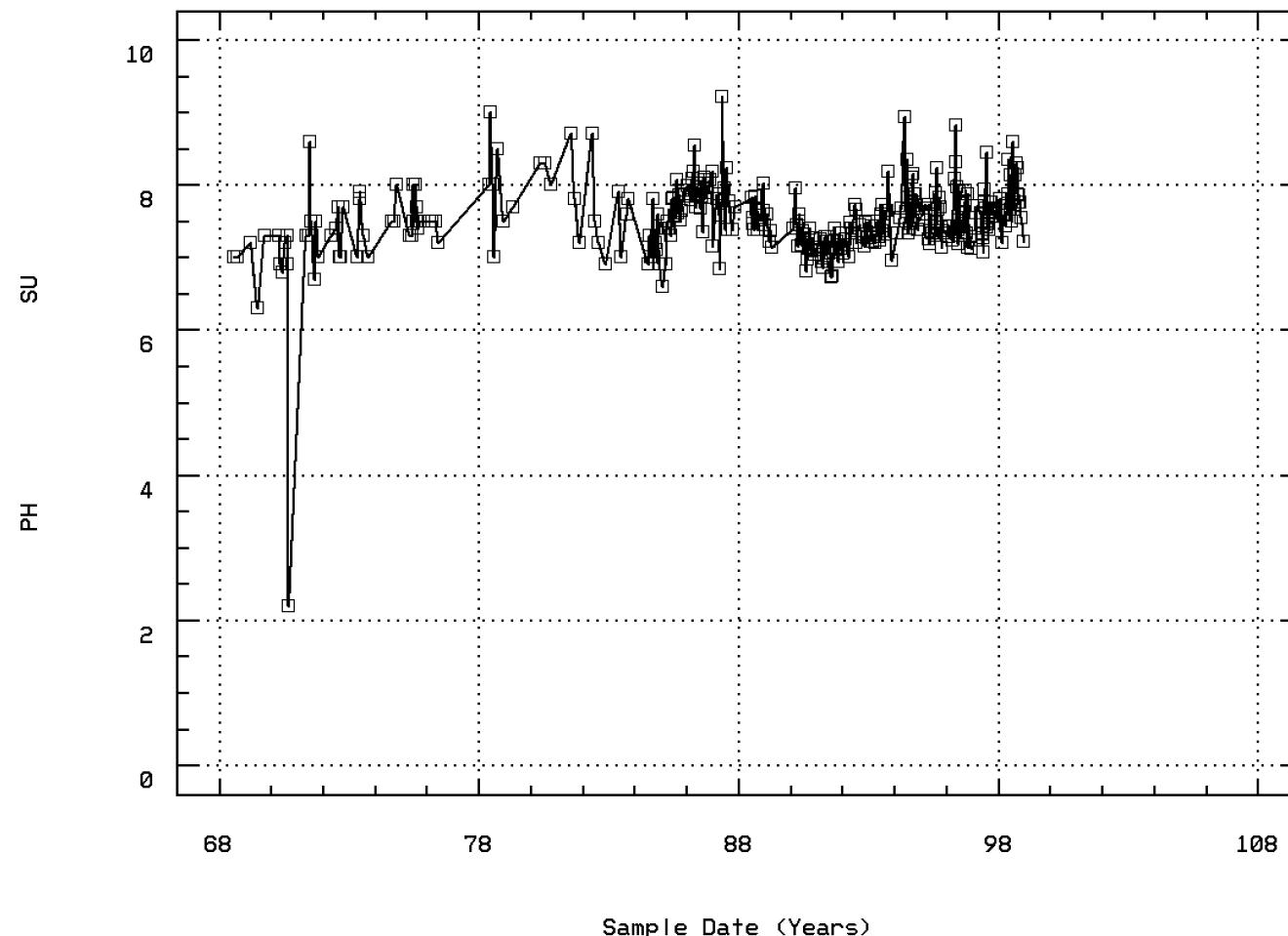
### EPA Water Quality Criteria Analysis for Station: RICH0032

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	14	1	0.07	8	0	0.00	2	1	0.50	4	0	0.00
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	83	2	0.02	25	0	0.00	29	2	0.07	29	0	0.00
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1047	7	0.01	347	7	0.02	340	0	0.00	360	0	0.00
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	117	11	0.09	52	11	0.21	20	0	0.00	45	0	0.00
00400 PH	Fresh Chronic	9.	332	2	0.01	137	0	0.00	84	0	0.00	111	2	0.02
00403 PH, LAB	Other-Lo Lim.	6.5	332	2	0.01	137	1	0.01	84	0	0.00	111	1	0.01
	Fresh Chronic	9.	74	0	0.00	21	0	0.00	24	0	0.00	29	0	0.00
	Other-Lo Lim.	6.5	74	1	0.01	21	0	0.00	24	0	0.00	29	1	0.03
00613 NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	212	0	0.00	72	0	0.00	70	0	0.00	70	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	79	0	0.00	41	0	0.00	10	0	0.00	28	0	0.00
00618 NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	208	0	0.00	70	0	0.00	68	0	0.00	70	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	79	0	0.00	41	0	0.00	10	0	0.00	28	0	0.00
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	36	0	0.00	11	0	0.00	13	0	0.00	12	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	95	0	0.00	36	0	0.00	27	0	0.00	32	0	0.00
	Drinking Water	250.	95	0	0.00	36	0	0.00	27	0	0.00	32	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	62	0	0.00	20	0	0.00	23	0	0.00	19	0	0.00
01002 ARSENIC, TOTAL	Fresh Acute	360.	5	0	0.00				1	0	0.00	4	0	0.00
	Drinking Water	50.	5	0	0.00				1	0	0.00	4	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00				1	0	0.00			
	Drinking Water	5.	1 &	0	0.00				1	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	15	3	0.20	4	0	0.00	2	0	0.00	9	3	0.33
	Drinking Water	1300.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
01051 LEAD, TOTAL	Fresh Acute	82.	13	0	0.00	4	0	0.00	2	0	0.00	7	0	0.00
	Drinking Water	15.	13	1	0.08	4	0	0.00	2	0	0.00	7	1	0.14
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	4	0	0.00							4	0	0.00
	Drinking Water	100.	4	0	0.00							4	0	0.00
01067 NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00				2	0	0.00	2	0	0.00
	Drinking Water	100.	4	0	0.00				2	0	0.00	2	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
	Drinking Water	5000.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	13	10	0.77	8	6	0.75				5	4	0.80
31506 COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	28	13	0.46	10	5	0.50	8	5	0.63	10	3	0.30
31614 FECAL COLIFORM, MPN, TUBE CONFIGURATION	Other-Hi Lim.	200.	4	1	0.25							4	1	0.25
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	107	50	0.47	47	21	0.45	28	15	0.54	32	14	0.44
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	99	51	0.52	44	22	0.50	23	14	0.61	32	15	0.47
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00				1	0	0.00	1	0	0.00
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	1	0	0.00							1	0	0.00
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	2	0	0.00				1	0	0.00	1	0	0.00
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	3	2	0.67	2	2	1.00				1	0	0.00
71900 MERCURY, TOTAL	Fresh Acute	2.4	15	0	0.00	5	0	0.00	2	0	0.00	8	0	0.00
	Drinking Water	2.	15	0	0.00	5	0	0.00	2	0	0.00	8	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station: RICH0032 Parameter Code: 00400

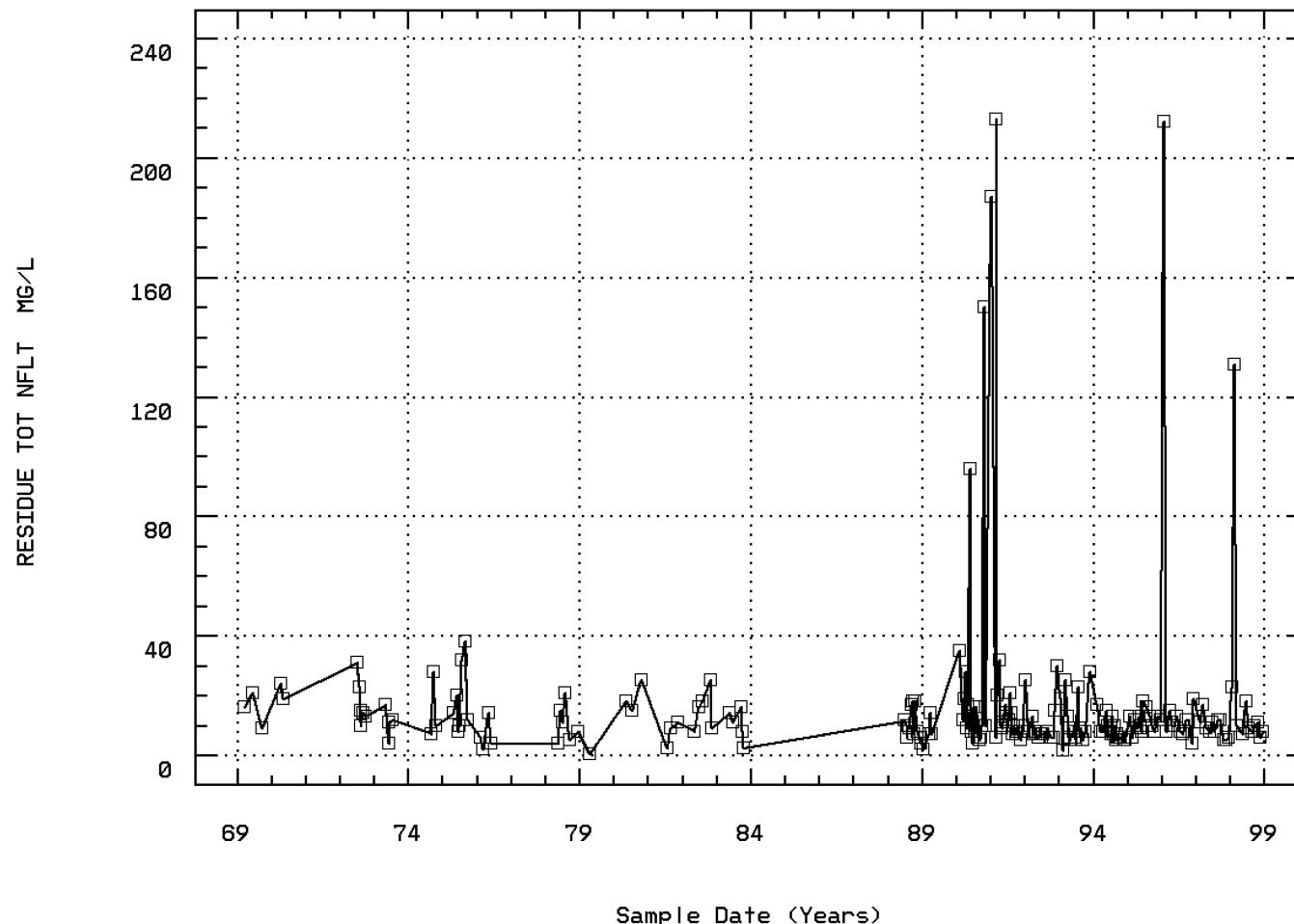
PH (STANDARD UNITS)



BUOY 157

Station: RICH0032 Parameter Code: 00530

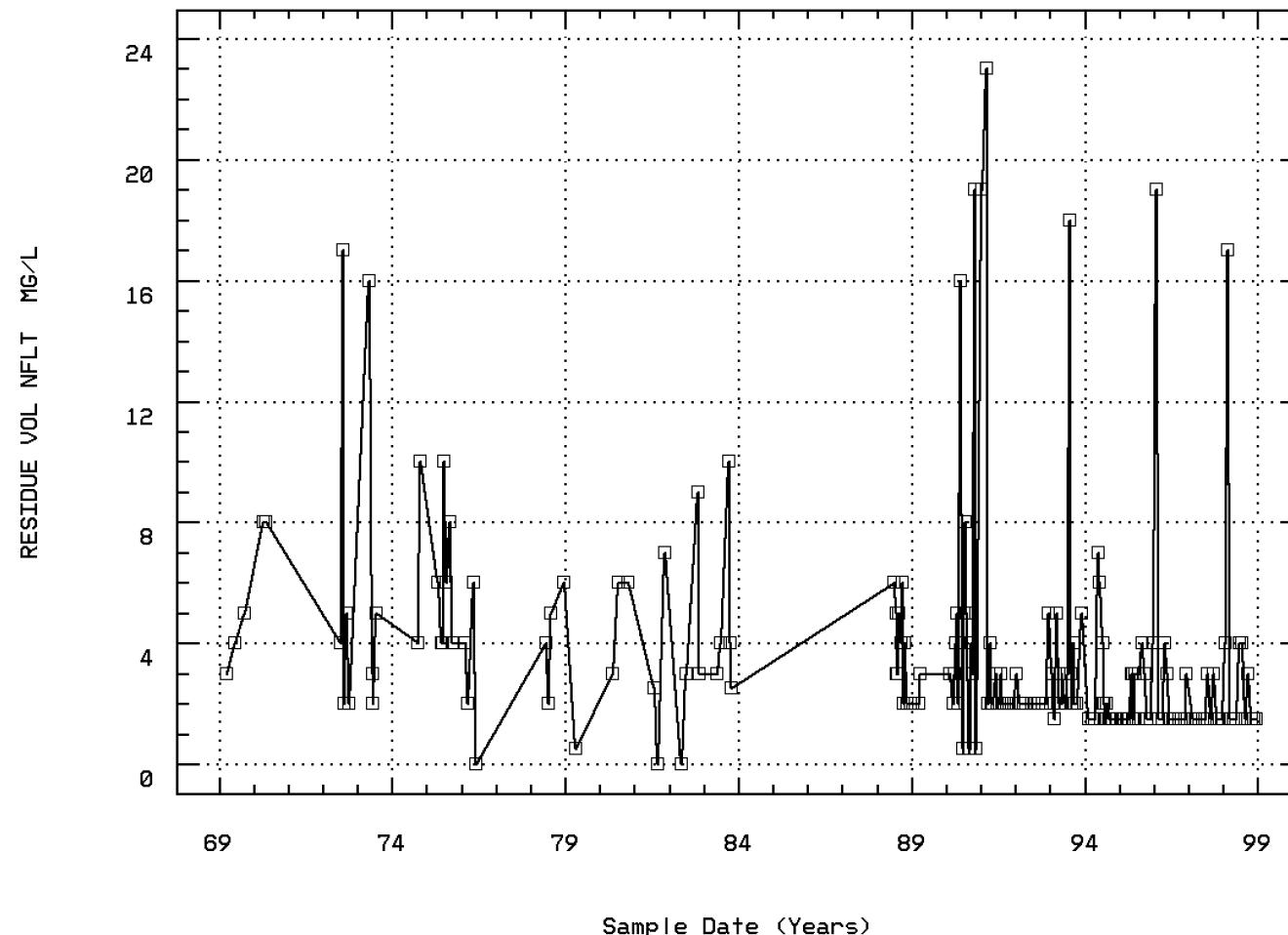
RESIDUE, TOTAL NONFILTRABLE (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00535

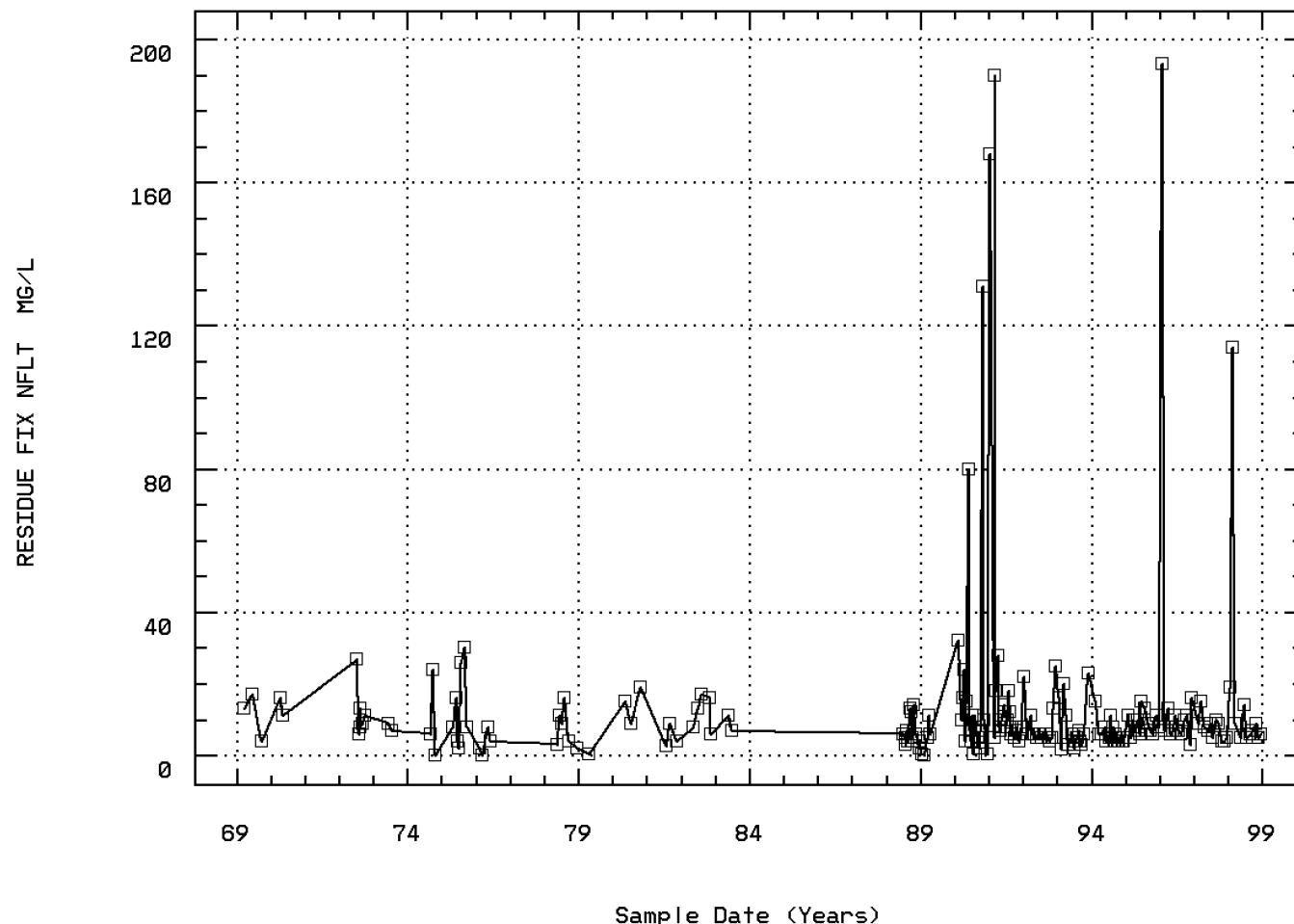
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00540

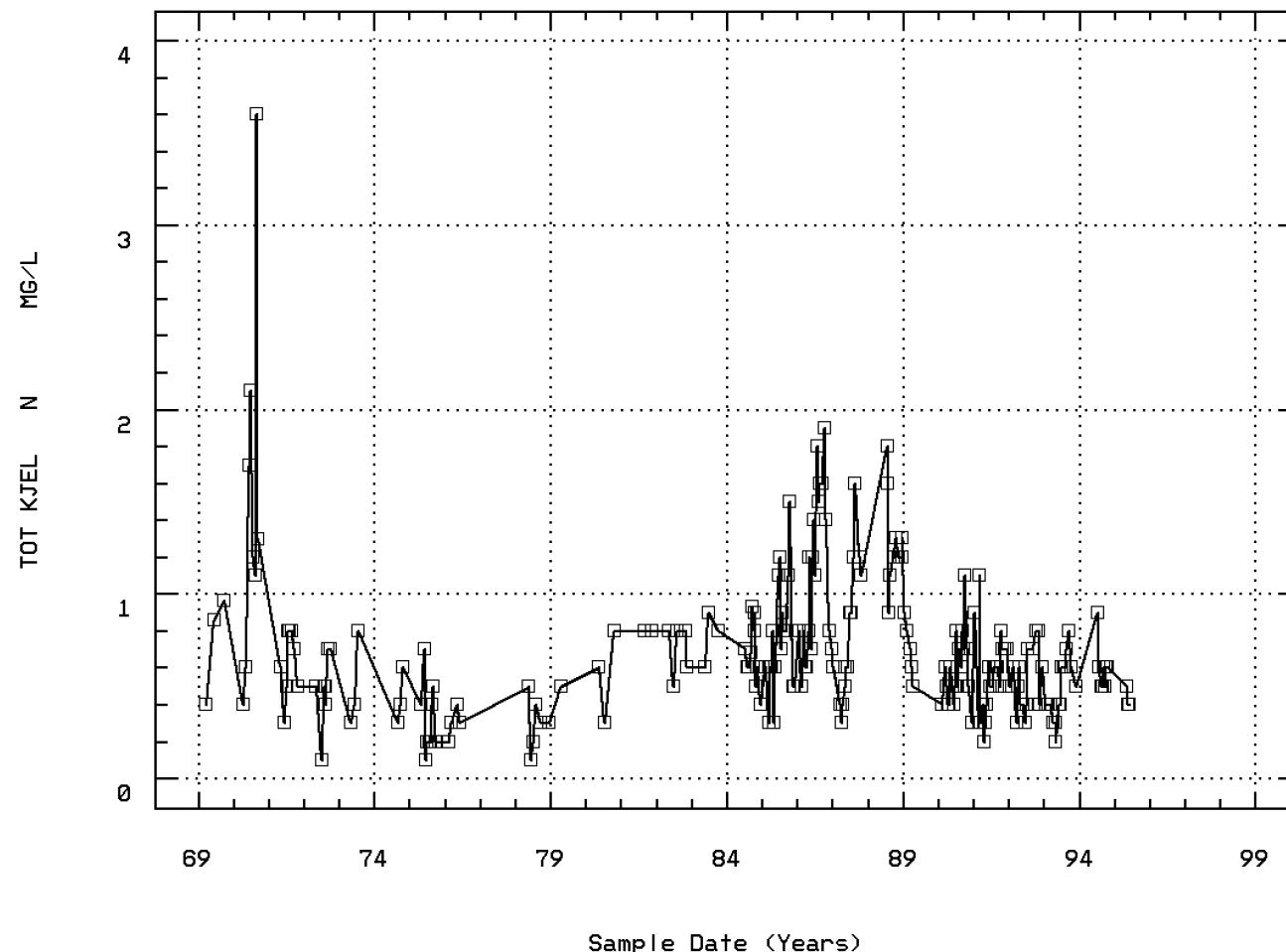
RESIDUE, FIXED NONFILTRABLE (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00625

NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



BUOY 157

### Annual Analysis for 1968 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	2	28.6	28.6	30.	27.2	3.92	1.98	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	2	3.85	3.85	3.9	3.8	0.005	0.071	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	2	7.	7.	7.	7.	0.	0.	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	2	7.	7.	7.	7.	0.	0.	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	2	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	3	21.1	18.9	25.6	10.	64.47	8.029	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	3	4.7	5.7	8.8	3.6	7.51	2.74	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	3	2.	2.167	2.9	1.6	0.443	0.666	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.2	6.933	7.3	6.3	0.303	0.551	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.2	6.689	7.3	6.3	0.393	0.627	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	3	0.063	0.205	0.501	0.05	0.066	0.257	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	3	6.8	6.733	7.3	6.1	0.363	0.603	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	3	6.8	6.476	7.3	6.1	0.463	0.68	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	3	0.158	0.334	0.794	0.05	0.162	0.402	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	3	31.	36.667	52.	27.	180.333	13.429	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	16.	15.333	21.	9.	36.333	6.028	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	4.	4.	5.	3.	1.	1.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	13.	11.333	17.	4.	44.333	6.658	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	3	0.86	0.74	0.96	0.4	0.089	0.299	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	8	28.6	26.525	31.1	17.8	23.422	4.84	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	8	4.	4.4	7.6	1.6	3.76	1.939	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	7	2.9	3.614	6.8	1.4	4.965	2.228	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	7	6.9	6.371	7.3	2.2	3.426	1.851	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	7	6.9	3.045	7.3	2.2	16.335	4.042	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	7	0.126	901.45	6309.573	0.05	5687072.953	2384.758	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	2	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	2	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	2	0.063	0.063	0.063	0.063	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	2	42.	42.	44.	40.	8.	2.828	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	21.5	21.5	24.	19.	12.5	3.536	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	8.	8.	8.	8.	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	13.5	13.5	16.	11.	12.5	3.536	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	8	1.249	1.499	3.599	0.4	1.017	1.008	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	1	7.	7.	7.	7.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	8	25.	24.5	29.4	17.2	20.974	4.58	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	8	6.3	6.4	9.	4.	2.56	1.6	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	1	2.4	2.4	2.4	2.4	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	8	7.3	7.4	8.6	6.7	0.306	0.553	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	8	7.3	7.191	8.6	6.7	0.356	0.596	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	8	0.05	0.064	0.2	0.003	0.004	0.061	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	8	0.65	0.625	0.8	0.3	0.034	0.183	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	6	23.05	23.35	26.7	20.6	7.339	2.709	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	7	7.	7.114	8.4	6.	0.985	0.992	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	6	7.35	7.35	7.7	7.	0.099	0.315	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	6	7.347	7.26	7.7	7.	0.109	0.33	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	6	0.045	0.055	0.1	0.02	0.001	0.037	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	14.5	17.667	31.	10.	61.467	7.84	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	3.	5.333	17.	2.	34.267	5.854	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	10.	12.333	27.	6.	57.467	7.581	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	7	0.5	0.486	0.7	0.1	0.041	0.204	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	6	7.	7.833	11.	5.	6.967	2.639	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	5	28.3	26.1	29.4	17.8	23.115	4.808	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	5	7.	6.94	11.8	3.6	11.318	3.364	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	2	1.5	1.5	2.	1.	0.5	0.707	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.3	7.4	7.9	7.	0.185	0.43	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.3	7.254	7.9	7.	0.212	0.46	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	5	0.05	0.056	0.1	0.013	0.002	0.043	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	11.5	11.	17.	4.	28.667	5.354	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	4.	6.5	16.	2.	41.667	6.455	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	4.	4.5	9.	1.	17.	4.123	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	4	0.4	0.475	0.8	0.3	0.049	0.222	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	4	5.	6.	11.	3.	12.	3.464	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	3	21.	21.333	28.	15.	42.333	6.506	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	3	7.2	8.467	11.2	7.	5.613	2.369	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.5	7.667	8.	7.5	0.083	0.289	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.5	7.612	8.	7.5	0.088	0.296	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	3	0.032	0.024	0.032	0.01	0.	0.012	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	10.	15.	28.	7.	129.	11.358	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	4.	5.	10.	1.	21.	4.583	**	**	**	**

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### Annual Analysis for 1974 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	6.	10.	24.	0.	156.	12.49	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	3	0.4	0.433	0.6	0.3	0.023	0.153	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	3	11.	12.333	16.	10.	10.333	3.215	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	8	27.25	25.213	30.	17.2	20.164	4.49	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	9	7.8	8.011	9.2	7.	0.499	0.706	7.	7.65	8.55	9.2
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	9	1.	1.111	2.	0.5	0.299	0.546	0.5	0.75	1.5	2.
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	9	7.5	7.578	8.	7.3	0.072	0.268	7.3	7.35	7.85	8.
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	9	7.5	7.515	8.	7.3	0.076	0.276	7.3	7.35	7.85	8.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	9	0.032	0.031	0.05	0.01	0.	0.015	0.01	0.015	0.045	0.05
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	7	14.	19.143	38.	8.	134.476	11.596	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	7	6.	6.	10.	4.	5.333	2.309	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	7	8.	13.429	30.	2.	119.619	10.937	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	9	0.2	0.322	0.7	0.1	0.037	0.192	0.1	0.2	0.45	0.7
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	9	6.	6.222	12.	4.	6.694	2.587	4.	4.	7.5	12.
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	9	9.	11.333	30.	4.	73.	8.544	4.	5.	16.	30.

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### Annual Analysis for 1976 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	4	15.	14.45	22.2	5.6	62.997	7.937	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	4	9.2	9.8	12.7	8.1	4.433	2.106	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	4	1.	1.25	2.	1.	0.25	0.5	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.5	7.425	7.5	7.2	0.022	0.15	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.5	7.404	7.5	7.2	0.023	0.152	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	4	0.032	0.039	0.063	0.032	0.	0.016	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	5.	6.5	14.	2.	27.667	5.26	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	3.	3.	6.	0.	6.667	2.582	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	3.	3.5	8.	0.	11.667	3.416	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	4	0.3	0.3	0.4	0.2	0.007	0.082	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	4	5.5	5.25	6.	4.	0.917	0.957	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	4	9.	8.75	10.	7.	1.583	1.258	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	6	14.	15.333	26.	5.	88.667	9.416	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	6	6.6	7.35	11.7	4.7	6.743	2.597	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	4	1.5	1.5	2.	1.	0.333	0.577	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	6	8.	8.	9.	7.	0.5	0.707	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	6	8.	7.586	9.	7.	0.706	0.84	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	6	0.01	0.026	0.1	0.001	0.001	0.038	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	9.5	10.667	21.	4.	41.867	6.47	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	3.	3.167	6.	1.	4.567	2.137	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	6.5	7.5	16.	2.	29.9	5.468	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	6	0.3	0.3	0.5	0.1	0.02	0.141	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	6	7.	6.833	8.	4.	2.167	1.472	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	6	11.	10.5	15.	4.	16.7	4.087	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	1	6.	6.	6.	6.	0.	0.	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	3	21.	22.5	28.5	18.	29.25	5.408	**	**	**	**
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	3	235.	240.	319.	166.	5871.	76.622	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	3	7.7	7.667	8.3	7.	0.423	0.651	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	3	2.	2.	2.	2.	0.	0.	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	3	15.	14.	23.	4.	91.	9.539	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	3	8.3	8.2	8.3	8.	0.03	0.173	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	3	8.3	8.176	8.3	8.	0.031	0.176	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	3	0.005	0.007	0.01	0.005	0.	0.003	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	18.	19.333	25.	15.	26.333	5.132	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	6.	5.	6.	3.	3.	1.732	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	15.	14.333	19.	9.	25.333	5.033	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	3	0.6	0.567	0.8	0.3	0.063	0.252	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	3	0.2	0.167	0.25	0.05	0.011	0.104	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	3	0.1	0.133	0.25	0.05	0.011	0.104	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	3	10.	10.	11.	9.	1.	1.	**	**	**	**

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### Annual Analysis for 1981 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	3	26.	22.	29.	11.	93.	9.644	**	**	**	**
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	3	265.	272.667	305.	248.	856.333	29.263	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	3	7.	7.233	7.8	6.9	0.243	0.493	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	3	2.	2.333	3.	2.	0.333	0.577	**	**	**	**

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### Annual Analysis for 1981 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	3	15.	13.667	15.	11.	5.333	2.309	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.8	7.9	8.7	7.2	0.57	0.755	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.8	7.569	8.7	7.2	0.734	0.857	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	3	0.016	0.027	0.063	0.002	0.001	0.032	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	9.	7.5	11.	2.5	19.75	4.444	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	2.5	3.167	7.	0.	12.583	3.547	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	4.	5.167	9.	2.5	11.583	3.403	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	2	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	3	0.3	0.367	0.6	0.2	0.043	0.208	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	3	0.28	0.28	0.3	0.26	0.	0.02	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	3	7.	6.333	8.	4.	4.333	2.082	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**

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### Annual Analysis for 1982 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	4	23.25	20.875	28.	9.	69.729	8.35	**	**	**	**
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	5	188.	195.4	250.	162.	1214.8	34.854	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	4	7.1	7.575	10.6	5.5	4.642	2.155	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	5	2.	1.8	3.	1.	0.7	0.837	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	5	12.	14.2	22.	9.	31.2	5.586	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.35	7.575	8.7	6.9	0.622	0.789	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.325	7.255	8.7	6.9	0.759	0.871	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	4	0.047	0.056	0.126	0.002	0.003	0.053	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	16.	15.2	25.	8.	48.7	6.979	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	3.	3.2	9.	0.	12.2	3.493	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	13.	12.	17.	6.	23.5	4.848	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	5	0.8	0.7	0.8	0.5	0.02	0.141	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	5	0.2	0.18	0.2	0.1	0.002	0.045	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	5	0.13	0.128	0.19	0.19	0.06	0.054	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	5	5.	4.8	6.	4.	0.7	0.837	**	**	**	**

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### Annual Analysis for 1983 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	4	23.25	23.625	28.5	19.5	20.729	4.553	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	7 ##	0.155	0.194	0.5	0.105	0.019	0.138	**	**	**	**
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	4	242.5	239.75	320.	154.	7640.25	87.409	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	4	7.65	7.725	8.5	7.1	0.416	0.645	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	2	1.5	1.5	2.	1.	0.5	0.707	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	2	7.5	7.5	9.	6.	4.5	2.121	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.7	7.575	7.9	7.	0.163	0.403	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.689	7.416	7.9	7.	0.196	0.443	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	4	0.02	0.038	0.1	0.013	0.002	0.041	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	2	70.	70.	72.	68.	8.	2.828	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	11.	10.3	16.	2.5	28.2	5.31	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	4.	4.7	10.	2.5	9.2	3.033	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	9.	9.	11.	7.	8.	2.828	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	4	0.85	0.825	1.	0.6	0.029	0.171	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	4	0.3	0.275	0.4	0.1	0.023	0.15	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	4	0.215	0.198	0.3	0.06	0.015	0.122	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	4	4.5	4.75	6.	4.	0.917	0.957	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	25	19.5	16.58	26.	5.	46.556	6.823	5.	11.	20.5	24.2
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	9	1.	0.873	1.2	0.16	0.094	0.306	0.16	0.75	1.05	1.2
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	24	195.	169.917	225.	90.	2261.036	47.55	92.5	145.	210.	222.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	19	0.	0.042	0.2	0.	0.007	0.084	0.	0.	0.	0.2
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	25	8.3	9.236	12.	7.1	3.074	1.753	7.48	7.8	11.	12.
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	10	7.15	7.2	7.8	6.9	0.089	0.298	6.9	6.975	7.375	7.78
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	10	7.147	7.126	7.8	6.9	0.095	0.308	6.9	6.975	7.375	7.78
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	10	0.071	0.075	0.126	0.016	0.001	0.038	0.017	0.044	0.106	0.126
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	11	0.37	0.35	0.54	0.06	0.02	0.141	0.088	0.28	0.46	0.53
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	11	0.02	0.03	0.06	0.005	0.	0.022	0.005	0.005	0.05	0.058
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	7	0.45	0.467	0.63	0.36	0.01	0.1	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	11	0.68	0.692	0.93	0.4	0.03	0.174	0.42	0.6	0.9	0.924
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	10	0.285	0.304	0.5	0.18	0.012	0.11	0.183	0.218	0.37	0.499
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	11	0.23	0.248	0.44	0.07	0.013	0.114	0.086	0.17	0.3	0.44
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	11	0.23	0.235	0.42	0.05	0.012	0.111	0.068	0.17	0.3	0.418
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	11	4.	4.909	9.	3.	5.691	2.386	3.	3.	7.	9.
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	8	9550.	9465.	11720.	6800.	3012657.143	1735.701	**	**	**	**

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### Annual Analysis for 1985 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	97	21.5	18.68	28.5	1.5	51.819	7.199	9.	12.	24.	26.
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	16	0.85	1.413	10.15	0.3	5.532	2.352	0.3	0.6	1.2	3.955
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	97	160.	167.732	280.	75.	3025.532	55.005	95.	130.	200.	260.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	96	0.	0.01	0.1	0.	0.001	0.031	0.	0.	0.	0.1
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	97	7.6	8.306	14.4	2.1	5.784	2.405	6.2	6.4	10.	11.4
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	12	7.75	8.05	11.2	6.2	2.688	1.64	6.23	6.725	9.475	10.96
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	18	7.565	7.542	8.07	6.6	0.131	0.361	6.87	7.4	7.83	7.935
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	18	7.565	7.358	8.07	6.6	0.166	0.408	6.87	7.4	7.83	7.935
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	18	0.027	0.044	0.251	0.009	0.003	0.058	0.012	0.015	0.04	0.138
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	18	0.3	0.4	1.1	0.1	0.072	0.268	0.1	0.2	0.6	0.74
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	18	0.025	0.036	0.16	0.005	0.001	0.036	0.005	0.01	0.043	0.079
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	18	0.315	0.353	0.97	0.15	0.034	0.184	0.186	0.235	0.41	0.538
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	18	0.75	0.772	1.5	0.3	0.101	0.318	0.3	0.575	1.025	1.23
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	18	0.21	0.206	0.4	0.1	0.005	0.069	0.109	0.155	0.233	0.274
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	18	0.16	0.16	0.32	0.03	0.004	0.064	0.093	0.108	0.183	0.248
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	18	0.14	0.146	0.29	0.005	0.004	0.062	0.055	0.118	0.17	0.227
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	18	5.	5.222	8.	3.	2.301	1.517	3.	4.	6.	8.
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	18	8200.	7418.722	12800.	8.	12139566.801	3484.188	8.9	5175.	9905.	11090.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	101	21.6	18.64	30.5	2.5	76.725	8.759	5.	10.	27.	29.
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	19	1.	1.063	1.6	0.7	0.055	0.234	0.8	0.9	1.2	1.4
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	101	200.	216.911	390.	90.	9260.802	96.233	105.	120.	310.	358.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	101	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	87	7.7	8.276	12.5	4.6	6.445	2.539	5.	6.	10.7	12.1
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	20	7.55	8.09	12.4	5.	4.549	2.133	5.55	6.6	9.675	12.03
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	21	7.96	7.941	8.54	7.35	0.056	0.236	7.684	7.825	8.075	8.18
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	21	7.96	7.879	8.54	7.35	0.06	0.244	7.684	7.825	8.075	8.18
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	21	0.011	0.013	0.045	0.003	0.	0.008	0.007	0.008	0.015	0.021
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	21	0.6	0.617	1.3	0.01	0.112	0.334	0.1	0.4	0.85	1.16
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	21	0.03	0.059	0.26	0.005	0.004	0.066	0.005	0.008	0.09	0.16
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	21	0.22	0.228	0.48	0.025	0.021	0.146	0.025	0.095	0.35	0.436
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	21	1.	1.095	1.9	0.5	0.177	0.421	0.6	0.75	1.45	1.76
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	21	0.24	0.286	1.15	0.09	0.047	0.217	0.112	0.165	0.33	0.4
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	21	0.18	0.201	0.41	0.07	0.01	0.102	0.072	0.115	0.275	0.356
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	20	0.185	0.21	0.42	0.07	0.011	0.104	0.072	0.13	0.323	0.34
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	21	6.	5.667	8.	4.	1.233	1.111	4.	5.	6.5	7.
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	21	7100.	6490.476	9800.	2900.	4460904.762	2112.085	3700.	4700.	8250.	9380.

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### Annual Analysis for 1987 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	80	16.5	18.324	32.	4.	78.421	8.856	7.2	9.425	27.575	29.8
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	15	1.	0.973	1.7	0.4	0.098	0.313	0.46	0.8	1.1	1.46
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	80	180.	186.25	410.	70.	11054.114	105.139	75.	95.	220.	395.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	80	8.7	8.661	12.7	3.8	7.598	2.756	5.3	5.95	12.1	12.4
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	15	8.7	8.487	13.	3.9	7.2	2.683	4.98	6.1	11.1	12.52
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	13	7.78	7.745	9.22	6.84	0.33	0.575	6.964	7.38	7.915	8.828
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	13	7.78	7.485	9.22	6.84	0.403	0.635	6.964	7.38	7.915	8.828
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	13	0.017	0.033	0.145	0.001	0.001	0.038	0.003	0.012	0.042	0.115
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	16	0.4	0.478	1.1	0.11	0.096	0.31	0.138	0.21	0.7	0.96
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	16	0.01	0.033	0.2	0.005	0.003	0.054	0.005	0.005	0.038	0.151
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	16	0.26	0.242	0.48	0.025	0.019	0.137	0.043	0.123	0.32	0.459
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	16	0.9	0.831	1.6	0.3	0.13	0.361	0.37	0.525	1.075	1.32
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	16	0.18	0.188	0.38	0.08	0.008	0.088	0.094	0.12	0.228	0.359
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	16	0.1	0.14	0.35	0.04	0.009	0.096	0.047	0.063	0.218	0.301
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	15	0.1	0.122	0.26	0.005	0.008	0.092	0.02	0.04	0.22	0.26
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	13	5.	4.538	6.	3.	0.769	0.877	3.	4.	5.	5.6
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	16	7150.	7225.	9900.	4800.	2580666.667	1606.445	4870.	6100.	8750.	9410.

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### Annual Analysis for 1988 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	49	23.6	20.214	30.	2.9	78.356	8.852	3.1	13.9	28.35	30.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	2	5.55	5.55	5.6	5.5	0.005	0.071	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	9	0.7	0.689	1.	0.4	0.031	0.176	0.4	0.6	0.8	1.
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	49	370.	338.612	408.	250.	2720.659	52.16	265.	300.	380.	397.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	2	264.5	264.5	267.	262.	12.5	3.536	**	**	**	**
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	49	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	49	7.3	7.578	13.7	3.5	8.098	2.846	4.5	5.1	8.55	13.7

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### Annual Analysis for 1988 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	12	7.575	7.619	8.02	7.38	0.038	0.194	7.38	7.483	7.788	7.966
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	12	7.575	7.584	8.02	7.38	0.039	0.197	7.38	7.482	7.788	7.966
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	12	0.027	0.026	0.042	0.01	0.	0.01	0.011	0.017	0.033	0.042
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	9.5	10.417	18.	4.	23.72	4.87	4.6	6.25	15.75	18.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	3.5	3.667	6.	2.	2.424	1.557	2.	2.	5.	6.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	5.5	6.75	14.	2.	16.205	4.025	2.3	4.	10.75	13.7
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	10	0.655	0.617	0.87	0.26	0.057	0.238	0.27	0.375	0.853	0.869
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.08	0.08	0.17	0.005	0.003	0.052	0.01	0.025	0.11	0.164
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.31	0.301	0.46	0.08	0.013	0.114	0.113	0.22	0.413	0.454
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	12	1.2	1.217	1.8	0.9	0.069	0.262	0.93	1.	1.3	1.74
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	12	0.315	0.301	0.49	0.21	0.007	0.084	0.21	0.218	0.33	0.46
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	13	0.24	0.285	0.78	0.14	0.03	0.174	0.144	0.165	0.3	0.66
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	12	0.24	0.229	0.41	0.14	0.006	0.08	0.14	0.145	0.278	0.374
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	12	4.45	4.583	5.7	3.5	0.409	0.639	3.62	4.15	5.05	5.64
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	12	6300.	6191.667	9900.	400.	5404469.697	2324.752	1690.	5575.	7050.	9630.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	25	8.1	8.996	13.	6.	7.375	2.716	6.1	6.8	12.	12.94
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	5	1.	1.	1.4	0.6	0.125	0.354	**	**	**	**
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	25	155.	177.28	239.	131.	1740.377	41.718	131.	144.5	214.5	238.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	3	149.	172.333	237.	131.	3217.333	56.722	**	**	**	**
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	25	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	25	11.6	11.316	12.	10.4	0.455	0.674	10.4	10.5	11.9	12.
00340'	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.37	7.352	7.59	7.13	0.033	0.183	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.37	7.322	7.59	7.13	0.034	0.186	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	5	0.043	0.048	0.074	0.026	0.	0.019	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/20/69-12/15/98	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CaCO <sub>3</sub> )	03/20/69-12/15/98	1	39.	39.	39.	39.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	7.	6.2	14.	1.	26.7	5.167	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	2.	1.8	3.	1.	0.7	0.837	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	5.	4.5	11.	0.	20.25	4.5	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	5	0.28	0.322	0.56	0.11	0.034	0.185	**	**	**	**
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	5	0.01	0.019	0.04	0.005	0.	0.015	**	**	**	**
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	5	0.31	0.328	0.43	0.27	0.004	0.061	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	5	0.7	0.7	0.9	0.5	0.025	0.158	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	5	0.14	0.152	0.23	0.11	0.002	0.046	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	5	0.09	0.108	0.19	0.07	0.002	0.048	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	5	0.08	0.102	0.2	0.06	0.003	0.056	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	5	2.9	3.	3.3	2.7	0.08	0.283	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	5	7200.	6940.	8000.	5200.	1228000.	1108.152	**	**	**	**

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### Annual Analysis for 1990 - Station RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	97	21.8	20.243	30.2	6.5	50.178	7.084	9.3	14.85	27.5	29.12
00078 TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	18	1.	0.961	2.	0.1	0.215	0.464	0.28	0.675	1.3	1.46
00094p SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	97	183.	202.485	376.	106.	5487.857	74.08	114.	161.	252.	333.2
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	19	162.	176.368	291.	21.	5031.023	70.93	102.	129.	229.	291.
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	97	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	97	8.2	8.549	13.1	5.7	3.556	1.886	6.1	6.95	10.2	11.2
00340 COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	9	7.	8.222	13.	5.	8.444	2.906	5.	6.	11.	13.
00400p PH (STANDARD UNITS)	07/22/68-12/15/98	19	7.27	7.274	7.95	6.81	0.065	0.254	6.97	7.1	7.4	7.6
00400p CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	19	7.27	7.211	7.95	6.81	0.069	0.263	6.97	7.1	7.4	7.6
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	19	0.054	0.061	0.155	0.011	0.001	0.033	0.025	0.04	0.079	0.107
00403 PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	1	0.04	0.04	0.04	0.04	0.04	0.	0.	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	1	38.	38.	38.	38.	0.	0.	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	10.	23.737	150.	1.	1378.538	37.129	1.	6.	19.	96.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	3.	4.368	19.	0.5	25.746	5.074	0.5	1.	5.	16.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	10.	19.526	131.	0.5	1055.569	32.49	0.5	4.	16.	80.
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	19	0.28	0.25	0.6	0.05	0.019	0.138	0.07	0.14	0.32	0.42
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	19	0.02	0.038	0.12	0.005	0.001	0.038	0.005	0.01	0.06	0.12
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	19	0.27	0.261	0.47	0.02	0.014	0.119	0.09	0.17	0.32	0.47
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	19	0.5	0.579	1.1	0.3	0.036	0.19	0.4	0.4	0.7	0.8
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	19	0.1	0.103	0.28	0.05	0.003	0.052	0.06	0.07	0.11	0.17
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	19	0.05	0.05	0.08	0.02	0.	0.019	0.03	0.03	0.06	0.08
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	19	0.04	0.044	0.07	0.02	0.	0.016	0.02	0.03	0.06	0.07
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	19	3.3	3.321	6.7	1.5	1.476	1.215	2.	2.4	3.9	5.2
00955 SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	19	7.7	7.068	9.5	2.5	3.495	1.869	3.5	6.3	8.	9.

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### Annual Analysis for 1991 - Station RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	94	21.35	18.794	28.8	6.4	58.268	7.633	9.65	10.175	26.	27.7
00078 TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	19	1.	0.895	1.6	0.1	0.199	0.447	0.2	0.5	1.3	1.5
00094p SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	94	168.	197.319	360.	109.	6539.101	80.865	111.	133.	264.	335.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	9	136.	154.889	243.	102.	2211.361	47.025	102.	119.	197.5	243.
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	94	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	94	8.15	8.843	12.5	6.2	3.79	1.947	6.4	7.1	10.9	11.3
00400p PH (STANDARD UNITS)	07/22/68-12/15/98	20	7.125	7.099	7.4	6.73	0.035	0.187	6.752	6.953	7.243	7.335
00400p CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	20	7.125	7.058	7.4	6.73	0.037	0.191	6.752	6.953	7.242	7.335
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	20	0.075	0.087	0.186	0.04	0.002	0.042	0.046	0.057	0.112	0.178
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	20	10.5	31.15	213.	5.	3391.924	58.24	6.1	8.25	19.25	171.5
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	20	2.	3.85	23.	1.	35.397	5.95	1.	1.25	2.75	17.5
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	20	9.	27.3	190.	4.	2736.326	52.31	5.	7.	17.	154.
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	20	0.125	0.167	0.39	0.04	0.013	0.114	0.06	0.07	0.26	0.376
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	20 ##	0.005	0.012	0.05	0.005	0.	0.012	0.005	0.005	0.018	0.03
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	20	0.305	0.308	0.46	0.08	0.012	0.108	0.12	0.24	0.375	0.46
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	20	0.6	0.565	1.1	0.2	0.049	0.221	0.3	0.4	0.7	0.89
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	20	0.1	0.123	0.37	0.05	0.007	0.084	0.021	0.03	0.068	0.08
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	20	0.045	0.051	0.09	0.03	0.	0.02	0.03	0.03	0.06	0.069
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	20	0.04	0.045	0.08	0.02	0.	0.017	0.021	0.03	0.06	0.069
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	20	3.65	3.705	7.6	1.2	2.178	1.476	1.74	2.9	4.425	5.84
00955 SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	20	6.8	6.87	9.4	2.5	2.73	1.652	4.67	5.9	8.	8.97

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### Annual Analysis for 1992 - Station RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	78	17.85	16.409	30.6	5.2	64.643	8.04	5.3	8.7	23.825	27.9
00078 TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	15	1.3	1.2	1.9	0.3	0.214	0.463	0.36	1.1	1.5	1.72
00094p SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	77	196.	212.922	354.	109.	4453.415	66.734	127.8	165.	244.	322.
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	77	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	78	8.7	9.635	13.5	5.9	4.971	2.23	7.1	8.	11.9	12.9
00340 COD, 25N K2CR207 MG/L	05/19/80-12/15/98	6	13.	13.333	20.	6.	27.867	5.279	**	**	**	**
00400p PH (STANDARD UNITS)	07/22/68-12/15/98	16	7.275	7.318	7.73	7.	0.041	0.204	7.035	7.178	7.473	7.681
00400p CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	16	7.275	7.277	7.73	7.	0.043	0.208	7.035	7.177	7.472	7.681
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	16	0.053	0.053	0.1	0.019	0.001	0.023	0.021	0.034	0.066	0.092
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	16	7.	10.375	30.	6.	51.85	7.201	6.	6.25	11.75	26.5
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	16	2.	1.813	5.	1.	1.096	1.047	1.	1.	2.	3.6
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	16	6.	8.563	25.	4.	39.596	6.293	4.7	5.	9.75	22.9
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	15	0.19	0.227	0.49	0.08	0.016	0.127	0.098	0.12	0.28	0.466
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	15	0.01	0.011	0.02	0.005	0.	0.006	0.005	0.005	0.02	0.02
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	15	0.33	0.29	0.52	0.07	0.017	0.129	0.112	0.18	0.38	0.478
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	15	0.5	0.533	0.8	0.3	0.028	0.168	0.3	0.4	0.7	0.8
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	15	0.08	0.088	0.14	0.06	0.001	0.028	0.06	0.07	0.12	0.134
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	15	0.04	0.041	0.09	0.02	0.	0.016	0.026	0.03	0.04	0.066
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	15	0.04	0.037	0.08	0.02	0.	0.014	0.02	0.03	0.04	0.056
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	22	4.1	3.932	6.6	1.7	1.868	1.367	1.89	2.575	4.575	5.91
00900 HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	5	68.	66.6	88.	33.	461.8	21.49	**	**	**	**
00955 SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	15	6.6	6.407	8.7	2.9	2.588	1.609	3.8	5.1	7.8	8.52

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### Annual Analysis for 1993 - Station RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	84	23.75	20.352	31.4	5.	85.784	9.262	6.6	10.7	29.175	30.5
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	11	6.9	12.755	48.	2.	223.591	14.953	2.38	4.	11.4	45.6
00078 TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	17	1.1	1.112	1.9	0.3	0.151	0.389	0.38	0.9	1.35	1.58
00094p SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	84	178.	226.869	441.	117.	11212.284	105.888	132.	143.	290.	403.5
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	79	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	84	7.9	8.908	13.5	6.3	5.059	2.249	6.4	7.025	11.075	12.1
00340 COD, 25N K2CR207 MG/L	05/19/80-12/15/98	9	12.	12.	22.	5.	24.5	4.95	5.	8.5	14.5	22.
00400p PH (STANDARD UNITS)	07/22/68-12/15/98	17	7.43	7.442	8.18	6.96	0.074	0.272	7.152	7.26	7.62	7.82
00400p CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	17	7.43	7.374	8.18	6.96	0.079	0.281	7.152	7.26	7.62	7.82
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	17	0.037	0.042	0.11	0.007	0.001	0.024	0.016	0.024	0.055	0.072
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	17	8.	10.912	28.	1.5	62.132	7.882	4.3	5.5	16.	25.6
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	17	2.	3.618	18.	1.5	14.86	3.855	1.9	2.	3.5	7.6
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	17	5.	7.382	23.	1.5	40.735	6.382	1.9	3.	9.	20.6
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	17	0.13	0.154	0.38	0.04	0.007	0.081	0.072	0.105	0.19	0.3
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	17	0.01	0.012	0.06	0.005	0.	0.014	0.005	0.005	0.01	0.036
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	17	0.22	0.249	0.48	0.12	0.009	0.095	0.136	0.18	0.315	0.4
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	17	0.4	0.506	1.	0.2	0.041	0.201	0.28	0.4	0.6	0.84
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	17	0.08	0.787	12.	0.04	8.35	2.89	0.048	0.06	0.11	2.52
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	17	0.04	0.048	0.12	0.02	0.001	0.028	0.02	0.03	0.06	0.104
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	17	0.03	0.036	0.09	0.01	0.	0.022	0.018	0.02	0.045	0.082
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	26	3.7	4.796	14.7	3.	6.381	2.526	3.1	3.4	5.175	7.98
00900 HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	8	64.	64.75	98.	0.	1090.214	33.018	**	**	**	**
00955 SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	17	6.9	7.041	9.	4.	1.575	1.255	5.28	6.45	7.75	8.84

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	68	19.15	18.938	31.9	4.3	69.768	8.353	9.1	9.425	26.125	29.9
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	19	6.6	6.237	11.8	2.2	5.779	2.404	3.	3.8	8	8.8
00078 TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	10	1.3	1.18	1.6	0.7	0.084	0.29	0.71	0.95	1.4	1.58
00094p SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	66	244.	235.515	332.	127.	3768.469	61.388	147.7	173.5	285.	301.3
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	19	222.	216.474	301.	114.	2826.596	53.166	133.	154.	258.	270.
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	53	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	68	8.85	9.149	13.	6.1	3.494	1.869	6.76	7.75	10.8	11.21
00310 BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	20	1.45	1.595	3.8	0.5	1.173	1.083	0.5	0.5	2.375	3.55
00340 COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	4	12.5	13.	17.	10.	8.667	2.944	**	**	**	**
00400p PH (STANDARD UNITS)	07/22/68-12/15/98	21	7.71	7.754	8.94	7.33	0.148	0.384	7.348	7.485	7.875	8.302
00400p CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	21	7.71	7.641	8.94	7.33	0.161	0.401	7.348	7.485	7.875	8.302
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	21	0.019	0.023	0.047	0.001	0.	0.014	0.005	0.013	0.033	0.045
00403 PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	17	7.2	7.271	7.9	6.7	0.101	0.318	6.86	7.05	7.6	7.74
00403 CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	17	7.2	7.17	7.9	6.7	0.112	0.334	6.86	7.05	7.6	7.74
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	17	0.063	0.068	0.2	0.013	0.002	0.047	0.018	0.025	0.09	0.141
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	16	54.5	52.563	69.	33.	87.729	9.366	39.3	44.	59.75	63.4
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	7.	8.263	17.	5.	11.982	3.462	5.	6.	10.	15.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	19 ##	1.5	2.211	7.	1.	2.675	1.636	1.5	1.5	2.	6.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	5.	6.	15.	4.	8.111	2.848	4.	4.	6.	11.
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	11	0.275	0.24	0.428	0.004	0.024	0.154	0.014	0.111	0.393	0.428
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	11	0.008	0.009	0.018	0.003	0.	0.006	0.003	0.004	0.015	0.018
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	11	0.24	0.209	0.36	0.002	0.012	0.111	0.016	0.13	0.27	0.358
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	8	0.6	0.6	0.9	0.5	0.017	0.131	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	8	0.065	0.07	0.12	0.05	0.001	0.023	**	**	**	**
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	5	0.05	0.062	0.11	0.04	0.001	0.029	**	**	**	**
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	11	0.032	0.033	0.092	0.002	0.001	0.025	0.003	0.011	0.033	0.086
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	12	3.15	3.208	5.3	0.5	1.266	1.125	1.16	2.75	3.775	4.97
00900 HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	9	72.	66.778	87.	42.	200.944	14.175	42.	53.5	75.	87.
00940 CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	11	22.	22.182	31.	10.	28.764	5.363	11.6	21.	24.	30.4
00945 SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	11	30.	28.818	42.	14.	69.364	8.328	15.2	20	35.	41.
00955 SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	11	7.5	7.118	9.6	4.7	2.026	1.423	4.82	5.6	8.	9.32
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	16	185.	1602.688	16000.	11.	16536337.429	4066.49	17.3	68.	1057.5	8580.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	16	2.254	2.317	4.204	1.041	0.77	0.878	1.223	1.833	2.965	3.874
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				GEOMETRIC MEAN =	207.36							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	67	17.8	17.755	32.1	2.8	86.205	9.285	5.3	7.9	24.5	29.52
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	15	9.4	10.627	19.9	5.8	19.149	4.376	6.1	7.2	12.2	19.06
00078 TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	12	1.1	1.075	1.6	0.7	0.088	0.296	0.7	0.8	1.275	1.57
00094p SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	66	185.	213.394	361.	120.	4322.581	65.746	152.	158.	250.	354.3
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	15	171.	198.533	402.	125.	5200.267	72.113	132.2	154.	226.	338.4
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	67	8.7	9.485	13.6	5.8	5.318	2.306	6.9	7.3	11.9	12.8
00310 BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	15	1.	1.313	3.	0.5	0.754	0.868	0.5	0.5	2.	2.7
00340 COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	12	11.	11.625	17.	2.5	17.96	4.238	3.85	9.25	15.	16.7
00400p PH (STANDARD UNITS)	07/22/68-12/15/98	21	7.48	7.533	8.23	7.14	0.071	0.266	7.202	7.33	7.705	7.876
00400p CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	21	7.48	7.466	8.23	7.14	0.075	0.274	7.202	7.33	7.705	7.876
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	21	0.033	0.034	0.072	0.006	0.	0.018	0.013	0.02	0.047	0.063
00403 PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	15	7.3	7.3	7.8	6.7	0.09	0.3	6.88	7.1	7.5	7.74
00403 CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	15	7.3	7.204	7.8	6.7	0.1	0.316	6.88	7.1	7.5	7.74
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	15	0.05	0.062	0.2	0.016	0.002	0.046	0.018	0.032	0.079	0.14
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	15	44.	47.267	76.	31.	145.924	12.08	32.2	42.	51.	71.8
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	15	12.	11.333	18.	6.	10.238	3.2	7.2	9.	13.	16.8

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	15 ##	1.5	2.333	4.	1.5	0.952	0.976	1.5	1.5	3.	4.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	15	8.	8.867	15.	5.	7.838	2.8	5.6	7.	11.	13.8
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.185	0.179	0.295	0.038	0.006	0.075	0.055	0.126	0.23	0.288
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.008	0.015	0.079	0.003	0.	0.021	0.003	0.005	0.013	0.064
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.27	0.252	0.41	0.05	0.012	0.108	0.071	0.16	0.305	0.41
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	3	0.4	0.433	0.5	0.4	0.003	0.058	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	4	0.095	0.098	0.14	0.06	0.001	0.033	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	11	0.08	0.078	0.14	0.04	0.001	0.028	0.042	0.05	0.09	0.132
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	12	0.055	0.056	0.117	0.03	0.001	0.023	0.031	0.04	0.062	0.104
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	12	4.4	4.792	8.2	2.9	2.61	1.616	2.99	3.5	5.825	7.78
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	06/18/92-12/15/98	12	63.	67.5	115.	45.	372.636	19.304	45.9	55.75	73.75	107.5
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	15	12.	15.4	39.	8.	79.4	8.911	8.	9.	21.	32.4
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	07/27/81-12/15/98	15	16.	19.	45.	12.	71.	8.426	12.6	14.	22.	33.6
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	12	8.05	7.8	10.4	4.3	3.975	1.994	4.63	5.9	9.725	10.22
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	02/17/94-12/15/98	21	130.	1086.857	9200.	9.	4898024.129	2213.148	11.2	44.	900.	4060.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	02/17/94-12/15/98	21	2.114	2.267	3.964	0.954	0.769	0.877	1.024	1.567	2.874	3.607
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)			GEOMETRIC MEAN =	184.819								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	10	0.037	0.102	0.654	0.025	0.038	0.195	0.025	0.028	0.06	0.596
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	9	0.72	0.818	1.576	0.045	0.252	0.502	0.045	0.509	1.293	1.576
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	10	0.073	0.107	0.261	0.034	0.006	0.079	0.037	0.061	0.154	0.259
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED, WTR MG/L	03/23/95-12/15/98	10	0.573	0.569	0.902	0.059	0.057	0.239	0.098	0.445	0.782	0.895
49572	PHOSPHOROUS TOTAL, FIELD FILTRATED, DISSLVD, WTR MG/L	03/23/95-12/15/98	10	0.071	0.122	0.554	0.041	0.024	0.154	0.042	0.059	0.1	0.512

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	77	18.5	16.745	28.5	3.8	80.624	8.979	4.3	6.	27.	28.
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	12	10.8	28.95	209.	5.4	3260.903	57.104	5.67	6.5	22.75	153.5
00078	TRANSPARENCE, SECCHI DISC (METERS)	06/28/83-12/15/98	12	0.95	0.925	2.	0.1	0.242	0.492	0.22	0.5	1.175	1.79
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	77	162.	173.26	310.	110.	2969.642	54.494	124.	135.	191.	251.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	12	153.	165.75	295.	107.	2974.568	54.54	110.	122.5	183.5	278.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	77	9.4	9.771	13.4	6.4	5.149	2.269	7.1	7.6	12.3	13.3
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	12 ##	0.5	0.917	2.	0.5	0.447	0.669	0.5	0.5	1.75	2.
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	12	10.	11.167	21.	5.	26.333	5.132	5.3	8.	12.75	21.
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	25	7.44	7.599	8.82	7.12	0.162	0.403	7.17	7.32	7.89	8.176
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	25	7.44	7.473	8.82	7.12	0.179	0.423	7.17	7.32	7.89	8.176
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	25	0.036	0.034	0.076	0.002	0.	0.021	0.007	0.013	0.048	0.068
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	12	7.4	7.442	8.	7.1	0.09	0.3	7.1	7.225	7.7	7.97
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	12	7.4	7.363	8.	7.1	0.097	0.311	7.1	7.225	7.7	7.97
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	12	0.04	0.043	0.079	0.01	0.001	0.023	0.011	0.022	0.06	0.079
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	12	41.5	44.25	73.	32.	139.477	11.81	32.3	33.75	51.25	67.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	11.	27.5	212.	4.	3391.364	58.235	4.9	8.	14.5	154.1
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	12 ##	1.5	3.417	19.	1.5	24.811	4.981	1.5	3.	14.5	
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	8.5	24.167	193.	3.	2839.606	53.288	3.9	6.25	12.5	139.9
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.035	0.074	0.456	0.022	0.015	0.122	0.022	0.024	0.063	0.343
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.004	0.005	0.011	0.002	0.	0.003	0.002	0.003	0.006	0.011
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.39	0.329	0.44	0.04	0.014	0.117	0.091	0.25	0.408	0.431
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	12	0.03	0.029	0.043	0.005	0.	0.009	0.01	0.025	0.034	0.041
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	8	4.05	4.188	6.5	2.5	1.307	1.143	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	06/18/92-12/15/98	12	58.	57.25	89.	28.	224.205	14.973	31.9	50.25	63.25	83.3
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	12	10.	10.625	22.	2.5	37.688	6.139	3.25	6.	12.	22.
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	07/27/81-12/15/98	12	13.	14.75	33.	9.	47.477	6.89	9.	10.25	15.75	30.
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	12	7.85	7.517	10.3	2.5	3.963	1.991	3.46	6.8	8.85	9.91

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	24	290.	2952.417	16000.	9.	35674164.254	5972.785	20.	68.	1250.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	24	2.461	2.509	4.204	0.954	0.946	0.972	1.301	1.833	3.096	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	322.725								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	12	0.027	0.046	0.245	0.012	0.004	0.063	0.014	0.023	0.034	0.186
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	11	0.63	0.966	5.098	0.074	1.955	1.398	0.133	0.375	0.744	4.309
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	10	0.091	0.137	0.525	0.024	0.021	0.145	0.026	0.055	0.164	0.493
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	12	0.562	0.555	0.718	0.234	0.016	0.128	0.304	0.499	0.646	0.708
49572	PHOSPHOROUS TOTAL, FIELD FILTRATED, DISSLVD,WTR MG/L	03/23/95-12/15/98	12	0.038	0.037	0.051	0.014	0.	0.01	0.018	0.032	0.046	0.05

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	46	21.3	18.391	30.8	5.7	78.659	8.869	5.7	10.1	28.5	29.46
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	11	7.8	8.636	16.6	6.2	8.551	2.924	6.26	7.3	8.9	15.46
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	10	1.15	1.17	1.7	0.6	0.089	0.298	1.	1.35	1.68	
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	44	219.5	227.114	410.	135.	4470.382	66.861	136.5	192.25	266.5	334.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	11	213.	226.273	314.	142.	3425.018	58.524	142.6	204.	292.	312.8
00096	SALINITY AT 25 DEGREES C (MG/M/L)	07/31/84-11/18/98	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299p	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	44	8.25	8.986	13.7	6.3	5.842	2.417	6.3	6.925	11.05	13.6
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	11 ##	1.	0.909	2.	0.5	0.191	0.437	0.5	0.5	1.	1.8
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	11	5.	6.364	13.	2.5	15.355	3.918	2.5	2.5	9.	12.8
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	22	7.61	7.58	8.45	7.07	0.081	0.285	7.249	7.37	7.72	7.879
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	22	7.61	7.505	8.45	7.07	0.087	0.295	7.249	7.37	7.72	7.879
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	22	0.025	0.031	0.085	0.004	0.	0.018	0.013	0.019	0.043	0.056
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	11	7.4	7.482	7.8	7.2	0.042	0.204	7.22	7.3	7.7	7.78
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	11	7.4	7.44	7.8	7.2	0.044	0.209	7.22	7.3	7.7	7.78
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	11	0.04	0.036	0.063	0.016	0.	0.016	0.017	0.02	0.05	0.061
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	11	55.	52.364	75.	27.	161.455	12.706	28.6	49.	57.	72.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	9.	9.455	17.	5.	13.073	3.616	5.	6.	12.	16.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	11 ##	1.5	1.773	3.	1.5	0.368	0.607	1.5	1.5	1.5	3.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	8.	7.727	15.	4.	10.618	3.259	4.	5.	9.	14.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	10	0.057	0.052	0.095	0.016	0.001	0.024	0.017	0.032	0.071	0.093
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	11	0.004	0.004	0.008	0.002	0.	0.002	0.002	0.003	0.006	0.008
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	11	0.35	0.299	0.46	0.11	0.013	0.113	0.126	0.19	0.38	0.452
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	11	0.026	0.027	0.056	0.001	0.	0.015	0.003	0.02	0.036	0.053
00900	HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	11	68.	67.636	80.	43.	137.055	11.707	45.2	62.	79.	79.8
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	11	17.	17.636	33.	8.	62.855	7.928	8.4	12.	24.	32.2
00945	SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	11	22.	22.909	35.	11.	72.091	8.491	11.	16.	31.	34.6
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	11	6.8	6.255	9.5	3.2	5.447	2.334	3.22	3.3	8.7	9.38
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	22	185.	533.682	5400.	9.	1355477.656	1164.25	11.7	66.25	370.	1580.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	22	2.254	2.208	3.732	0.954	0.468	0.684	1.045	1.821	2.561	3.195
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	161.511								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	11	0.011	0.012	0.022	0.006	0.	0.004	0.006	0.01	0.014	0.021
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	11	0.548	0.646	1.349	0.276	0.096	0.31	0.28	0.499	0.903	1.265
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	11	0.066	0.087	0.222	0.026	0.003	0.058	0.027	0.046	0.121	0.209
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	11	0.563	0.523	0.824	0.062	0.047	0.217	0.099	0.433	0.682	0.809
49572	PHOSPHOROUS TOTAL, FIELD FILTRATED, DISSLVD,WTR MG/L	03/23/95-12/15/98	11	0.041	0.038	0.072	0.007	0.	0.019	0.008	0.026	0.052	0.069

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

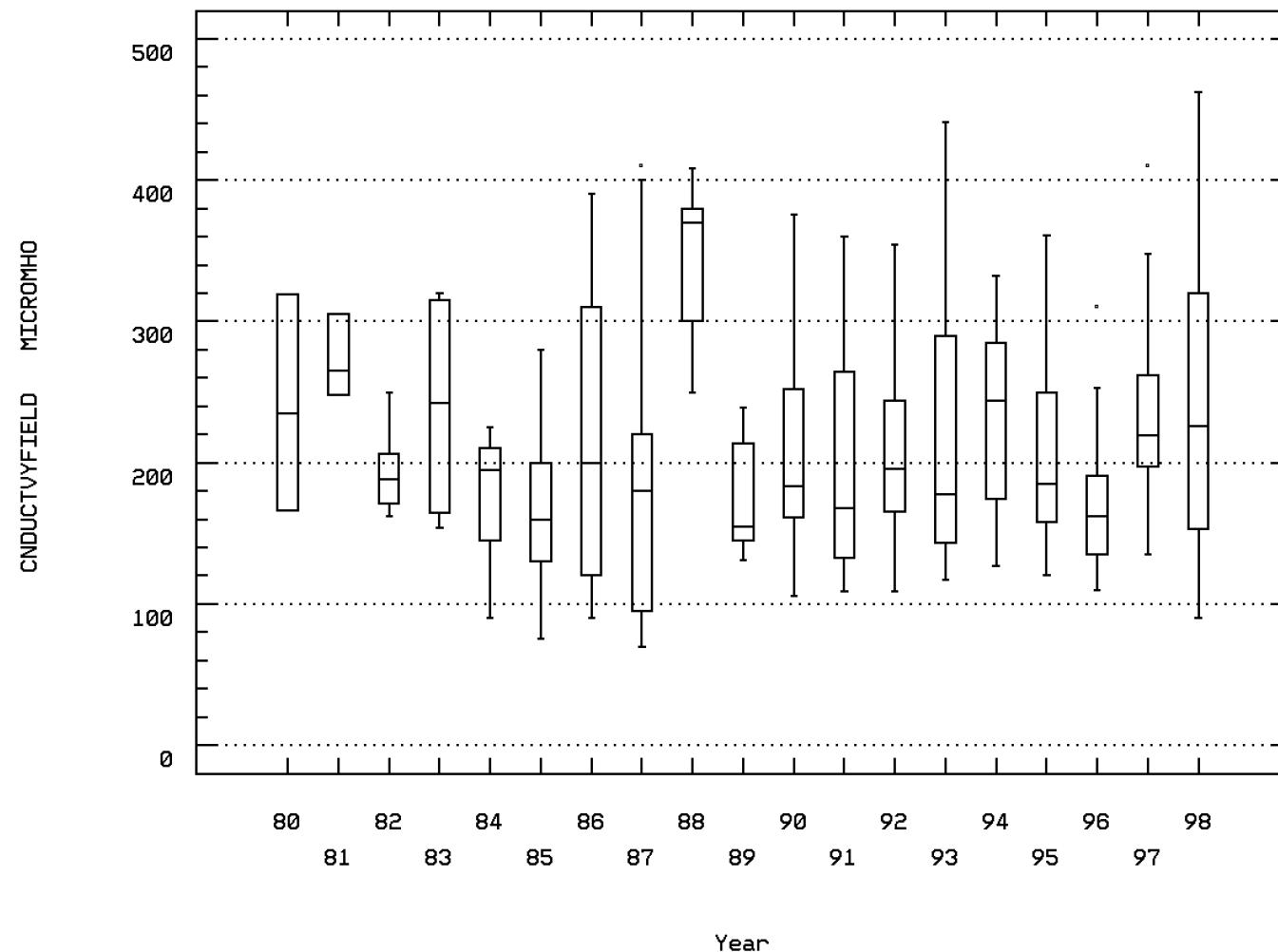
### Annual Analysis for 1998 - Station RICH0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	75	20.9	19.391	33.1	5.6	84.681	9.202	6.9	9.8	28.3	29.58
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	12	8.85	18.942	96.	4.5	684.043	26.154	4.62	7.1	18.275	79.17
00078 TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	11	0.8	0.736	1.2	0.2	0.097	0.311	0.22	0.5	1.	1.18
00094p SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	74	225.5	234.811	462.	90.	9422.292	97.068	115.	147.75	321.25	372.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	12	227.	238.75	514.	94.	15944.568	126.272	97.3	127.75	327.75	468.4
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	7	0.2	0.171	0.2	0.	0.006	0.076	**	**	**	**
00299p OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	75	8.6	9.279	12.9	6.5	3.791	1.947	6.76	7.5	11.2	12.
00310 BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	12 ##	1.	1.083	2.	1.	0.083	0.289	1.	1.	1.	1.7
00340 COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	12	9.5	10.25	27.	2.5	43.977	6.632	2.5	6.	13.75	23.1
00400p PH (STANDARD UNITS)	07/22/68-12/15/98	24	7.76	7.812	8.6	7.2	0.119	0.345	7.32	7.593	8.065	8.325
00400p CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	24	7.76	7.693	8.6	7.2	0.133	0.365	7.32	7.593	8.065	8.325
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	24	0.017	0.02	0.063	0.003	0.	0.016	0.005	0.009	0.026	0.049
00403 PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	12	7.	7.025	7.6	6.6	0.117	0.341	6.6	6.7	7.375	7.54
00403 CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	12	7.	6.914	7.6	6.6	0.13	0.36	6.6	6.7	7.375	7.54
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	12	0.1	0.122	0.251	0.025	0.007	0.083	0.03	0.042	0.2	0.251
00410ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	12	58.	54.417	79.	30.	256.083	16.003	30.9	39.25	67.	76.9
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	10.	21.909	131.	6.	1334.891	36.536	6.2	8.	18.	109.4
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	11 ##	1.5	3.727	17.	1.5	20.668	4.546	1.5	1.5	4.	14.4
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	7.	18.091	114.	5.	1031.091	32.111	5.	5.	14.	95.
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	10	0.025	0.038	0.09	0.007	0.001	0.032	0.007	0.012	0.066	0.09
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.005	0.006	0.017	0.002	0.	0.004	0.002	0.002	0.008	0.015
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	12	0.295	0.365	0.77	0.17	0.031	0.175	0.182	0.25	0.488	0.707
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	12	0.023	0.028	0.076	0.017	0.	0.016	0.017	0.018	0.03	0.064
00900 HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	12	67.	69.417	126.	35.	801.538	28.311	36.8	44.75	89.75	118.8
00940 CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	12	13.5	14.	28.	2.5	84.136	9.173	2.5	6.25	22.	27.7
00945 SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	12	20.	27.75	58.	8.	376.932	19.415	8.9	11.	47.25	57.7
00955 SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	12	7.2	6.783	9.2	4.	3.882	1.97	4.03	4.45	8.45	9.14
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	24	61.5	595.	3500.	9.	942567.478	970.859	9.	20.	1172.5	2300.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	24	1.773	2.008	3.544	0.954	0.807	0.899	0.954	1.301	3.06	3.361
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			101.804								
49567 PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	12	0.031	0.038	0.103	0.019	0.001	0.023	0.019	0.021	0.044	0.088
49569 CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	12	0.867	1.145	3.538	0.416	0.732	0.855	0.457	0.556	1.509	2.963
49570 NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	12	0.112	0.14	0.332	0.049	0.008	0.091	0.054	0.066	0.208	0.311
49571 NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	12	0.527	0.565	0.874	0.347	0.029	0.169	0.36	0.436	0.73	0.844
49572 PHOSPHOROUS TOTAL, FIELD FILTRATED, DISSLVD,WTR MG/L	03/23/95-12/15/98	12	0.03	0.036	0.09	0.022	0.	0.018	0.023	0.025	0.039	0.076

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

Station: RICH0032 Parameter Code: 00094

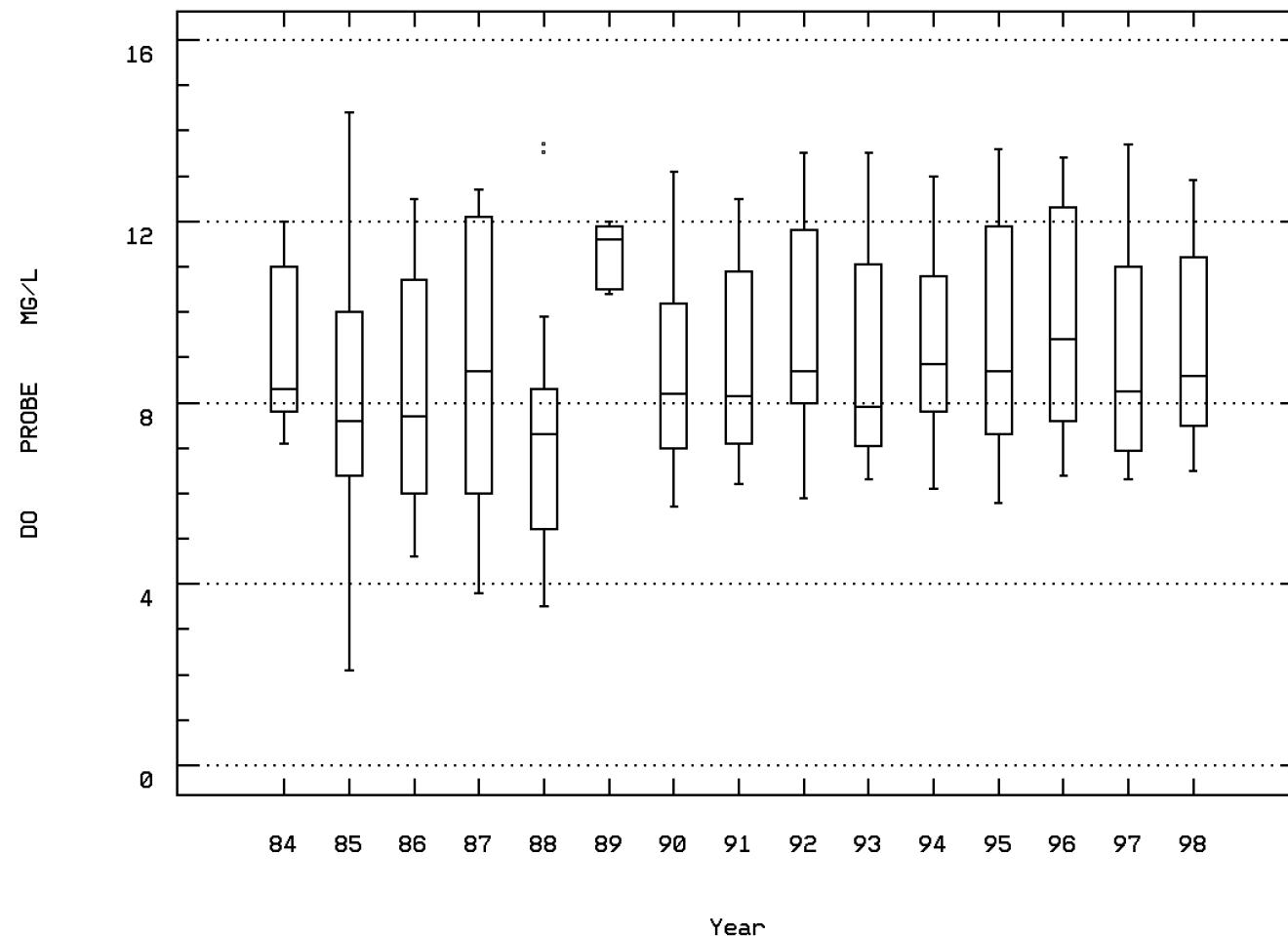
SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @



BUOY 157

Station: RICH0032 Parameter Code: 00299

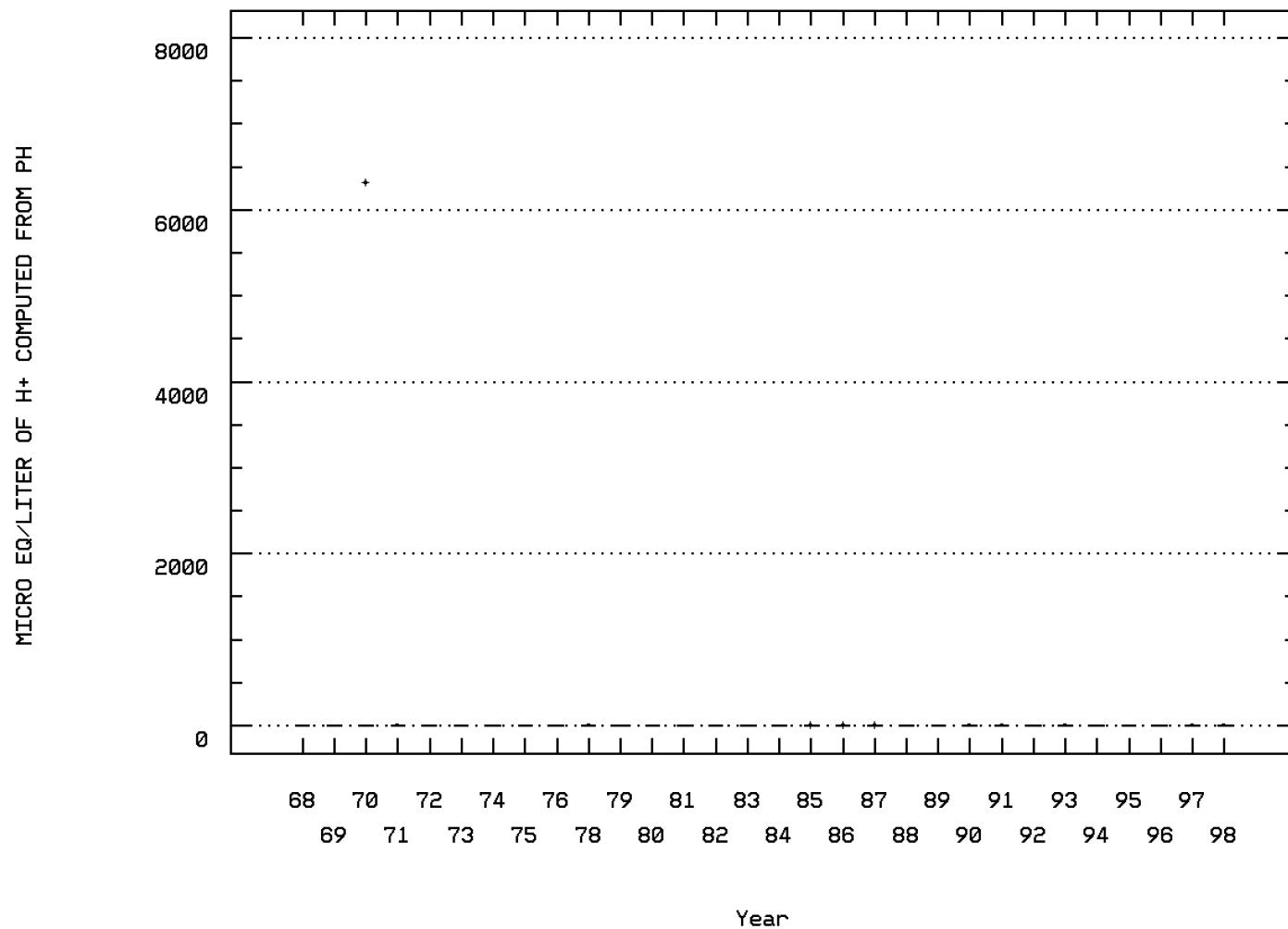
OXYGEN ,DISSOLVED, ANALYSIS BY PROBE



BUOY 157

Station: RICH0032 Parameter Code: 00400

MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



BUOY 157

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	395	27.	26.074	33.1	5.	15.237	3.903	20.56	23.6	29.1	30.24
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	25	6.8	6.928	18.5	2.	12.705	3.564	3.12	4.45	7.85	12.48
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	70	1.	0.93	1.6	0.105	0.135	0.368	0.207	0.7	1.2	1.3
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	359	280.	276.284	441.	105.	5921.562	76.952	163.	228.	335.	380.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	29	244.	244.793	402.	21.	4456.313	66.756	171.	218.	291.	308.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	303	0.	0.002	0.1	0.	0.	0.014	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	347	7.1	6.96	9.4	2.1	1.201	1.096	5.8	6.3	7.7	8.4
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	52	6.75	6.256	9.2	1.6	3.073	1.753	3.66	5.	7.525	8.4
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	40	1.8	1.668	6.8	0.5	1.315	1.147	0.5	1.	2.	2.99
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	26	10.	10.423	20.	2.5	18.234	4.27	4.25	7.	14.	15.3
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	137	7.51	7.534	8.7	2.2	0.371	0.609	7.	7.3	7.81	8.106
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	137	7.51	4.336	8.7	2.2	10.668	3.266	7.	7.3	7.81	8.106
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	137	0.031	46.094	6309.573	0.002	290585.552	539.06	0.008	0.015	0.05	0.1
00403p	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	21	7.4	7.429	8.	6.7	0.135	0.368	6.84	7.1	7.7	7.9
00403p	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	21	7.4	7.276	8.	6.7	0.16	0.4	6.84	7.1	7.7	7.9
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	21	0.04	0.053	0.2	0.01	0.002	0.05	0.013	0.02	0.079	0.147
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	22	57.5	58.773	76.	44.	81.232	9.013	46.9	51.75	68.	72.7
00500p	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	16	151.5	154.063	220.	110.	799.396	28.274	111.4	135.5	172.5	195.5
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	16	33.5	36.063	68.	14.	273.396	16.535	15.4	22.5	46.	67.3
00510p	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	16	120.5	118.	152.	81.	396.8	19.92	91.5	101.75	133.5	147.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	78	9.	11.179	38.	1.	45.779	6.766	5.	7.	13.25	21.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	78	2.25	3.295	18.	0.	8.789	2.965	1.	1.5	4.	6.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	75	6.	8.107	30.	0.5	32.171	5.672	3.6	5.	10.	14.2
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	67	0.3	0.38	1.3	0.016	0.086	0.293	0.059	0.173	0.5	0.814
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/69-06/01/95	41	0.28	0.323	0.8	0.03	0.029	0.171	0.108	0.2	0.425	0.528
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	72	0.03	0.051	0.26	0.003	0.003	0.052	0.005	0.01	0.07	0.12
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	41	0.02	0.05	0.9	0.005	0.019	0.139	0.006	0.01	0.04	0.096
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	70	0.26	0.286	0.63	0.1	0.013	0.113	0.16	0.21	0.353	0.449
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	41	0.38	0.433	1.649	0.01	0.12	0.347	0.05	0.15	0.595	0.88
00625p	NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	97	0.8	0.838	3.599	0.1	0.235	0.485	0.4	0.6	1.	1.52
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/20/83-12/15/98	11	0.4	0.455	1.	0.2	0.067	0.258	0.2	0.2	0.6	0.96
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	69	0.2	0.203	1.15	0.05	0.026	0.161	0.07	0.1	0.26	0.34
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	62	0.12	0.139	0.41	0.02	0.009	0.096	0.04	0.05	0.21	0.277
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	77	0.08	0.125	0.42	0.001	0.011	0.104	0.022	0.035	0.2	0.3
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	86	4.5	5.108	12.	2.9	3.011	1.735	3.24	3.9	6.	7.72
00900	HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	18	78.5	81.	115.	63.	188.471	13.728	63.9	70.	89.25	99.7
00940p	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	36	14.5	16.222	39.	5.	69.149	8.316	5.7	10.25	22.	28.3
00945	SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	20	25.5	25.602	48.	0.03	133.119	11.538	11.3	17.	33.	44.2
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	40	7.1	7.082	10.3	3.9	2.43	1.559	5.03	6.025	8.175	9.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	44	175.	961.886	8000.	5.	3358380.987	1832.589	41.5	50.	982.5	3800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	44	2.239	2.349	3.903	0.699	0.584	0.765	1.618	1.699	2.992	3.579
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	44	223.252									
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	27	0.1	0.154	0.7	0.05	0.019	0.137	0.05	0.05	0.2	0.28
70507p	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-06/01/95	34	0.085	0.09	0.29	0.01	0.003	0.057	0.035	0.05	0.113	0.175

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	348	8.3	9.478	21.	1.5	23.324	4.829	4.3	5.6	14.	16.9
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	29	10.	22.693	209.	3.3	1617.641	40.22	5.5	6.55	20.3	48.
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	66	0.85	0.911	2.	0.1	0.246	0.496	0.3	0.5	1.3	1.6
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	344	165.	189.826	462.	70.	7484.704	86.514	95.	121.25	238.75	327.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	35	179.	202.086	514.	94.	7818.492	88.422	111.2	142.	262.	307.4
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	301	0.	0.008	0.2	0.	0.001	0.037	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	340	11.4	11.16	14.4	6.4	2.973	1.724	8.7	9.9	12.4	13.3

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	20	10.5	10.2	13.	6.2	4.056	2.014	6.98	8.725	12.	12.67
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	31 ##	1.	1.145	3.6	0.5	0.534	0.731	0.5	0.5	1.4	2.
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	34	11.5	12.412	27.	2.5	40.477	6.362	5.	7.75	17.25	22.
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	84	7.435	7.45	8.18	6.6	0.109	0.33	7.045	7.2	7.708	7.905
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	84	7.435	7.33	8.18	6.6	0.124	0.352	7.045	7.2	7.708	7.905
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	84	0.037	0.047	0.251	0.007	0.001	0.038	0.012	0.02	0.063	0.09
00403p	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	24	7.25	7.196	7.6	6.6	0.064	0.253	6.8	7.025	7.4	7.5
00403p	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	24	7.247	7.118	7.6	6.6	0.07	0.265	6.8	7.025	7.4	7.5
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	24	0.057	0.076	0.251	0.025	0.003	0.054	0.032	0.04	0.095	0.163
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	24	48.	49.708	79.	30.	212.042	14.562	32.5	36.75	61.	73.5
00500p	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	8	145.	149.5	221.	103.	1253.714	35.408	**	**	**	**
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	8	36.5	38.	47.	31.	46.	6.782	**	**	**	**
00510p	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	8	110.	111.5	176.	58.	1119.143	33.454	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	59	10.	25.263	213.	1.	2367.71	48.659	4.	6.	19.	35.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	59	2.	4.042	23.	0.5	26.158	5.114	1.	1.5	4.	10.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	59	6.	21.297	193.	0.	1923.889	43.862	1.5	4.	16.	32.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	70	0.18	0.286	1.1	0.01	0.072	0.268	0.035	0.073	0.435	0.79
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/69-06/01/95	10	0.36	0.324	0.6	0.05	0.042	0.205	0.052	0.093	0.5	0.59
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	70	0.005	0.015	0.17	0.002	0.001	0.025	0.003	0.005	0.01	0.039
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	10	0.01	0.017	0.04	0.005	0.	0.013	0.005	0.009	0.025	0.04
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	68	0.33	0.33	0.77	0.02	0.016	0.126	0.139	0.25	0.418	0.48
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	10	0.32	0.39	0.8	0.12	0.048	0.219	0.125	0.23	0.545	0.788
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	57	0.6	0.698	1.5	0.2	0.091	0.301	0.3	0.5	0.85	1.2
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/20/83-12/15/98	13	0.4	0.408	0.8	0.2	0.021	0.144	0.24	0.3	0.45	0.68
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	53	0.16	0.429	12.	0.05	2.64	1.625	0.074	0.11	0.32	0.396
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	56	0.09	0.145	0.78	0.02	0.022	0.15	0.03	0.04	0.218	0.353
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	73	0.06	0.109	0.42	0.005	0.012	0.111	0.021	0.03	0.18	0.278
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	69	4.4	4.799	14.7	1.5	4.211	2.052	2.9	3.45	5.65	7.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	29	60.	63.621	126.	28.	489.458	22.124	41.	46.5	75.	94.
00940p	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	27	12.	14.741	31.	2.5	68.103	8.252	4.5	9.	22.	28.
00945	SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	23	18.	24.739	58.	8.	228.565	15.118	9.	13.	35.	52.2
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	43	7.5	7.193	10.4	3.3	3.126	1.768	4.4	6.4	8.7	9.38
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	05/06/71-12/02/93	23	200.	2374.304	24000.	9.	29418095.221	5423.845	44.	50.	1400.	9300.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	05/06/71-12/02/93	23	2.301	2.514	4.38	0.954	0.824	0.908	1.641	1.699	3.146	3.968
31616	GEOMETRIC MEAN =				326.328								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	5	0.1	0.11	0.2	0.05	0.003	0.055	**	**	**	**
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-06/01/95	6	0.055	0.093	0.2	0.03	0.006	0.076	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	388	20.	19.377	30.3	6.9	38.856	6.233	10.2	14.	24.4	27.5
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	29	7.9	9.469	39.9	2.2	45.335	6.733	5.8	6.7	9.95	11.7
00078	TRANSPARENCY, SECCHI DISC (METERS)	06/28/83-12/15/98	68	1.	1.168	10.15	0.3	1.322	1.15	0.59	0.8	1.3	1.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	367	162.	166.613	320.	90.	1817.555	42.633	110.	138.	190.	223.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	38	149.	159.289	243.	102.	1438.806	37.932	115.9	130.75	193.	219.3
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-11/18/98	328	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/12/84-12/15/98	360	8.5	8.766	12.9	4.8	3.268	1.808	6.4	7.425	10.3	11.1
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/09/87	45	7.8	7.722	11.8	4.4	2.791	1.671	5.62	6.85	8.7	9.94
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	43	1.	1.572	6.7	0.5	1.348	1.161	0.5	1.	2.	2.96
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	29	10.	9.155	17.	2.5	14.716	3.836	2.5	6.	12.	15.
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	111	7.49	7.565	9.22	6.3	0.23	0.48	7.062	7.28	7.8	8.172
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	111	7.49	7.357	9.22	6.3	0.274	0.523	7.062	7.28	7.8	8.172
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	111	0.032	0.044	0.501	0.001	0.003	0.054	0.007	0.016	0.052	0.087
00403p	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	29	7.3	7.241	7.8	6.1	0.146	0.382	6.7	7.1	7.45	7.7

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

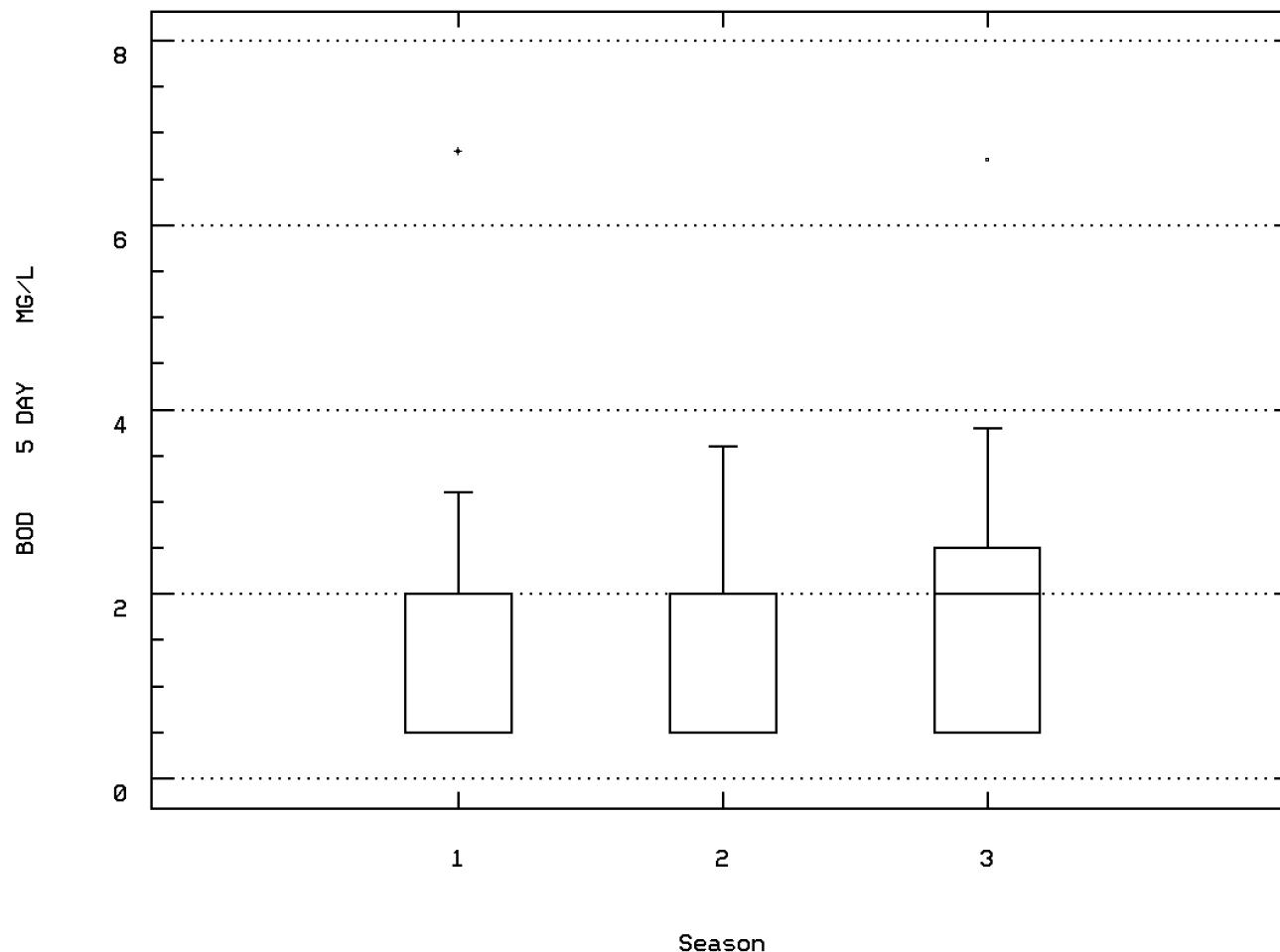
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00403p	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	29	7.3	7.029	7.8	6.1	0.193	0.439	6.7	7.1	7.45	7.7
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	29	0.05	0.094	0.794	0.016	0.021	0.146	0.02	0.036	0.079	0.2
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	29	42.	42.586	64.	27.	88.037	9.383	31.	35.5	50.	56.
00500p	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	20	123.5	118.9	178.	63.	855.568	29.25	72.6	103.75	135.25	161.8
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	20	33.5	42.75	92.	10.	388.303	19.705	25.	29.25	58.25	69.5
00510p	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	20	81.	76.15	113.	19.	610.029	24.699	35.7	59.	96.75	104.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	72	10.5	13.021	96.	0.5	130.792	11.436	6.	8.	15.75	19.7
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	72	2.	3.125	16.	0.	8.562	2.926	1.	1.5	4.	6.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	72	8.	9.896	80.	0.5	96.133	9.805	3.3	6.	11.75	16.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	70	0.155	0.209	0.8	0.004	0.033	0.183	0.026	0.08	0.28	0.49
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/69-06/01/95	29	0.2	0.219	0.9	0.05	0.031	0.177	0.05	0.1	0.255	0.43
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	70	0.005	0.013	0.11	0.002	0.	0.016	0.003	0.005	0.014	0.03
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	28	0.01	0.012	0.03	0.005	0.	0.007	0.005	0.005	0.02	0.02
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/12/84-12/15/98	70	0.27	0.253	0.97	0.002	0.025	0.158	0.05	0.138	0.333	0.419
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/69-06/01/95	28	0.34	0.336	0.82	0.025	0.041	0.201	0.059	0.153	0.498	0.584
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/69-06/01/95	78	0.5	0.541	1.699	0.1	0.08	0.282	0.3	0.4	0.6	0.91
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/20/83-12/15/98	12	0.25	0.245	0.4	0.04	0.012	0.109	0.058	0.2	0.3	0.4
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	58	0.105	0.121	0.25	0.04	0.003	0.059	0.059	0.07	0.17	0.211
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/12/84-01/29/96	54	0.06	0.078	0.24	0.02	0.003	0.051	0.03	0.04	0.103	0.165
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	75	0.04	0.06	0.21	0.002	0.002	0.048	0.019	0.03	0.08	0.14
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	79	3.9	4.044	10.	0.5	2.907	1.705	2.1	2.9	5.	6.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	06/18/92-12/15/98	22	58.5	55.591	80.	0.	260.348	16.135	37.7	49.25	66.25	70.8
00940p	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-12/15/98	32	8.	9.484	30.	2.5	32.153	5.67	4.	6.	10.75	17.7
00945	SULFATE, TOTAL (MG/L AS SO4)	07/27/81-12/15/98	19	14.	14.895	22.	10.	16.322	4.04	11.	11.	18.	22.
00955	SILICA, DISSOLVED (MG/L AS SiO2)	02/13/90-12/15/98	46	7.5	6.678	9.8	2.5	3.815	1.953	3.11	5.6	7.9	8.93
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-12/02/93	32	100.	3248.125	80000.	4.	199030434.435	14107.815	16.8	50.	482.5	4360.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-12/02/93	32	2.	2.262	4.903	0.602	0.832	0.912	1.22	1.699	2.683	3.638
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	182.615								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	18 ##	0.05	0.081	0.2	0.05	0.002	0.042	0.05	0.05	0.1	0.155
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-06/01/95	21	0.05	0.063	0.16	0.03	0.001	0.036	0.03	0.04	0.075	0.132

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0032 Parameter Code: 00310

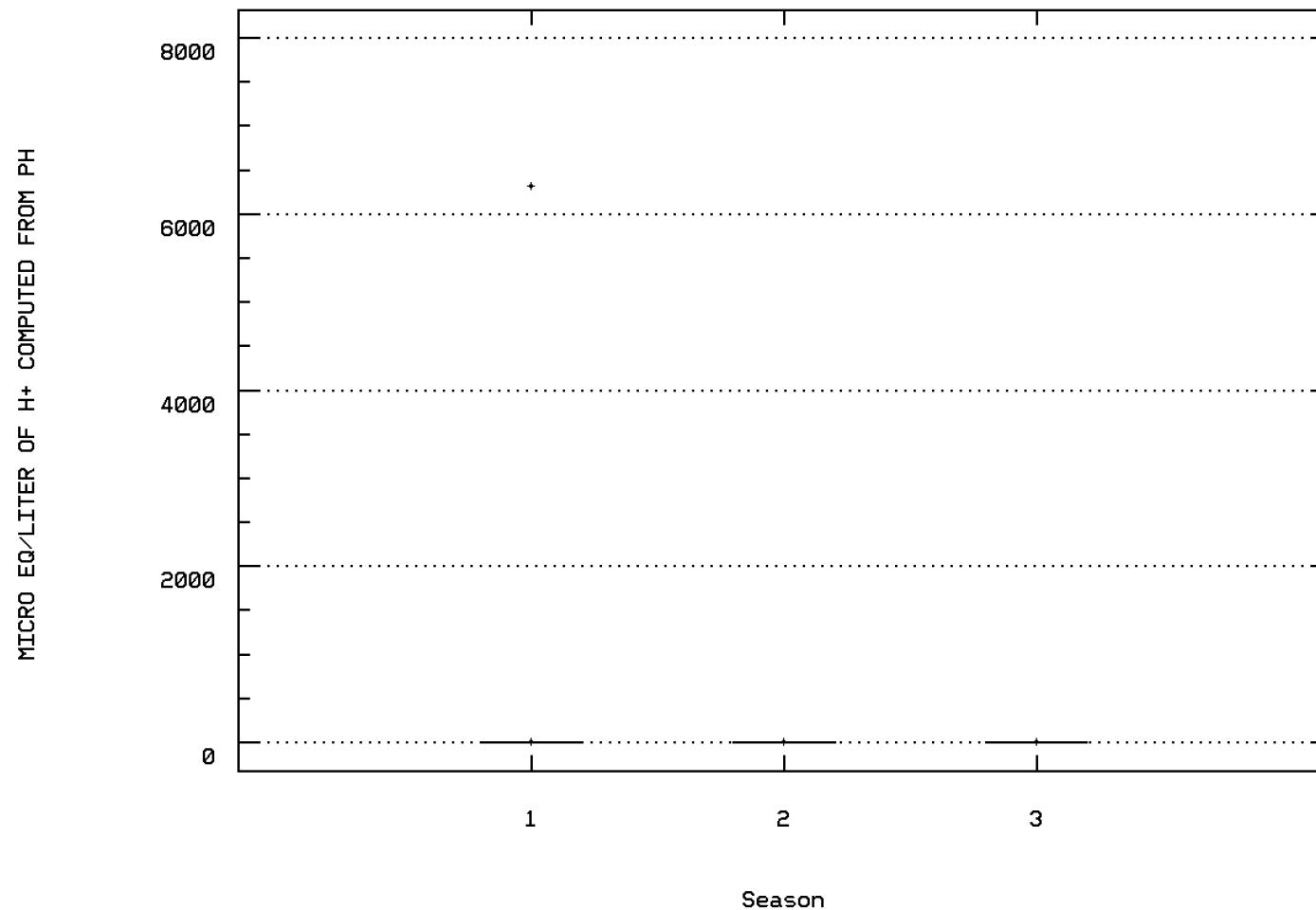
BOD, 5 DAY, 20 DEG C



BUOY 157

Station: RICH0032 Parameter Code: 00400

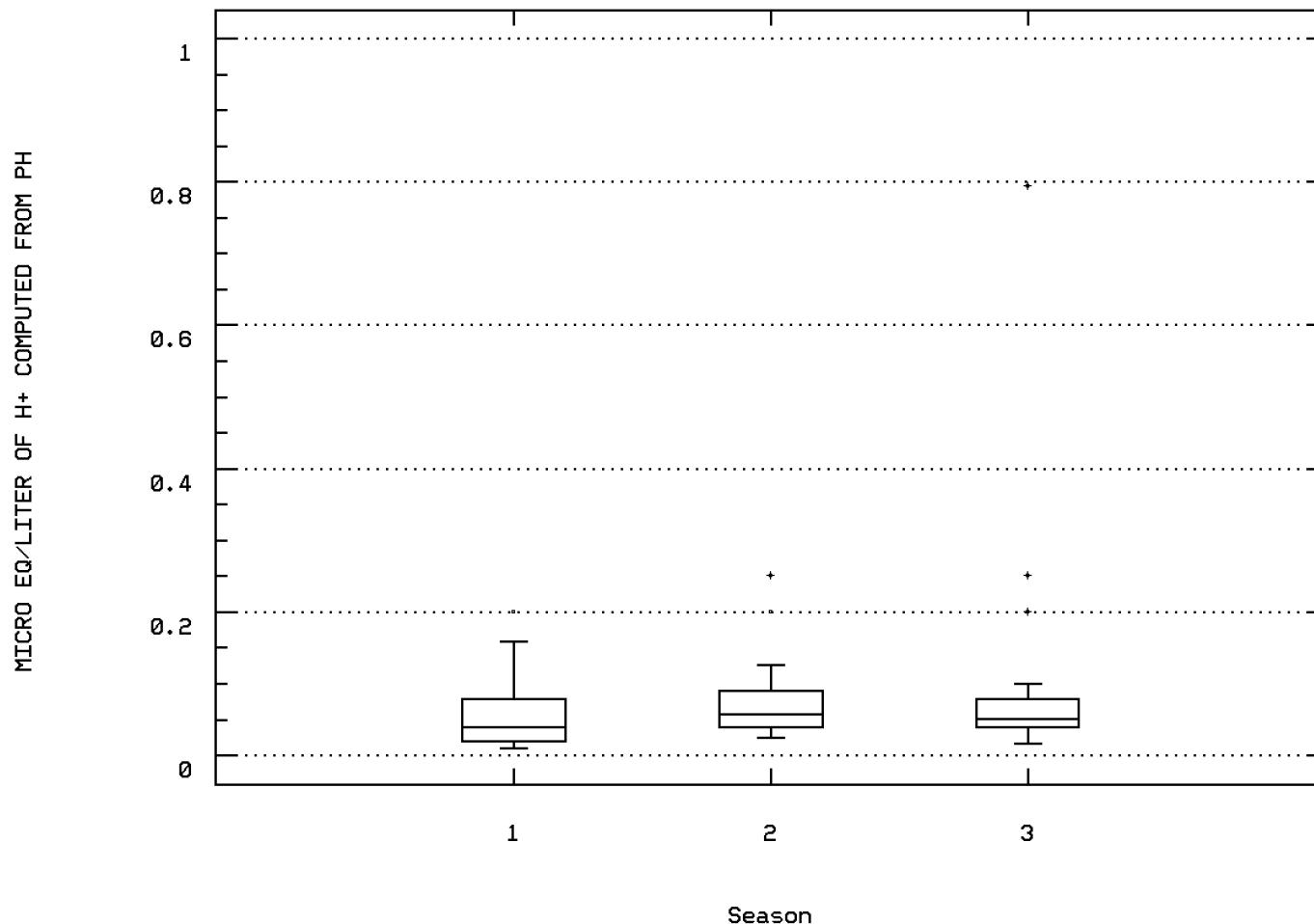
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



BUOY 157

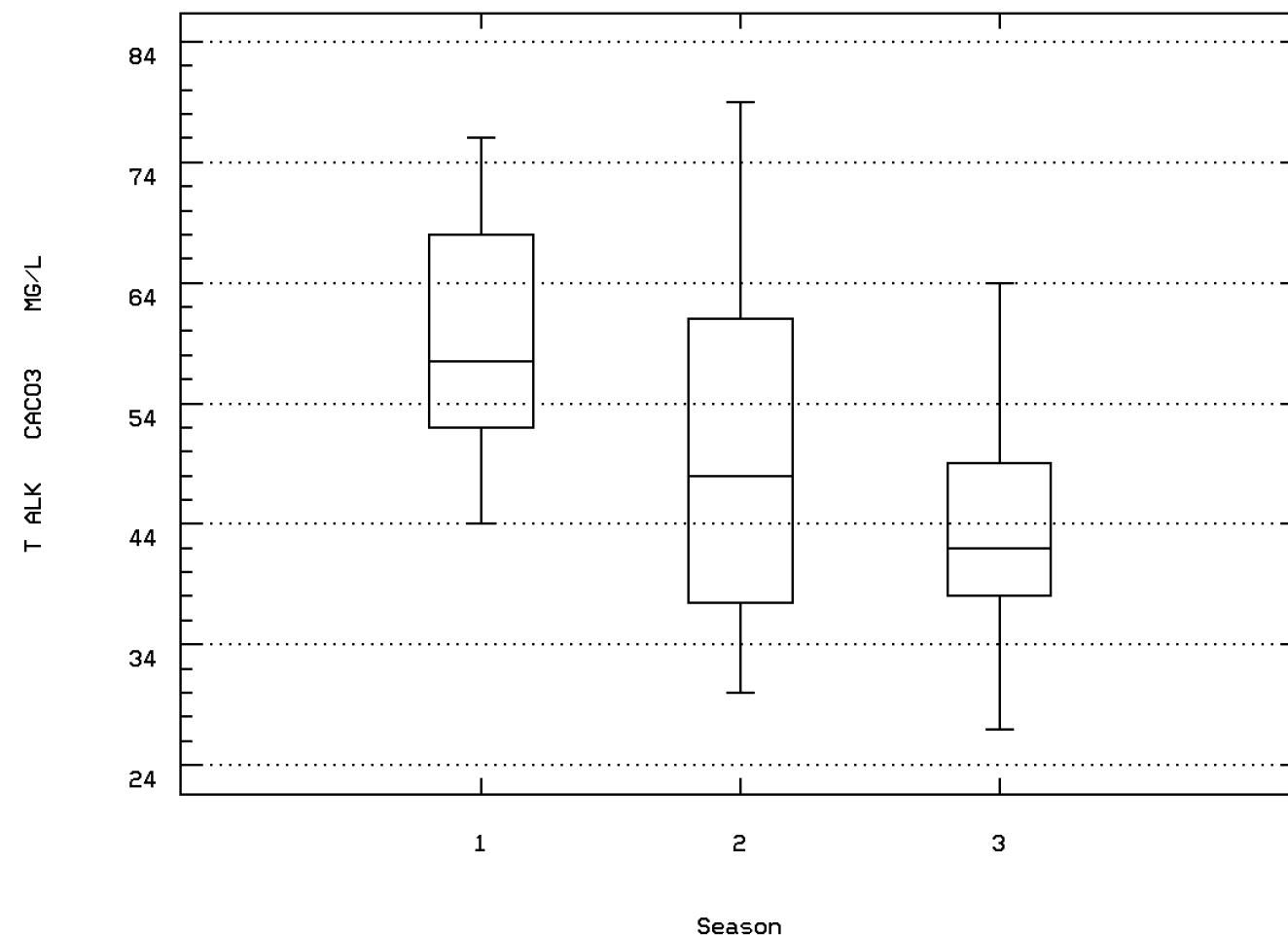
Station: RICH0032 Parameter Code: 00403

MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



Station: RICH0032 Parameter Code: 00410

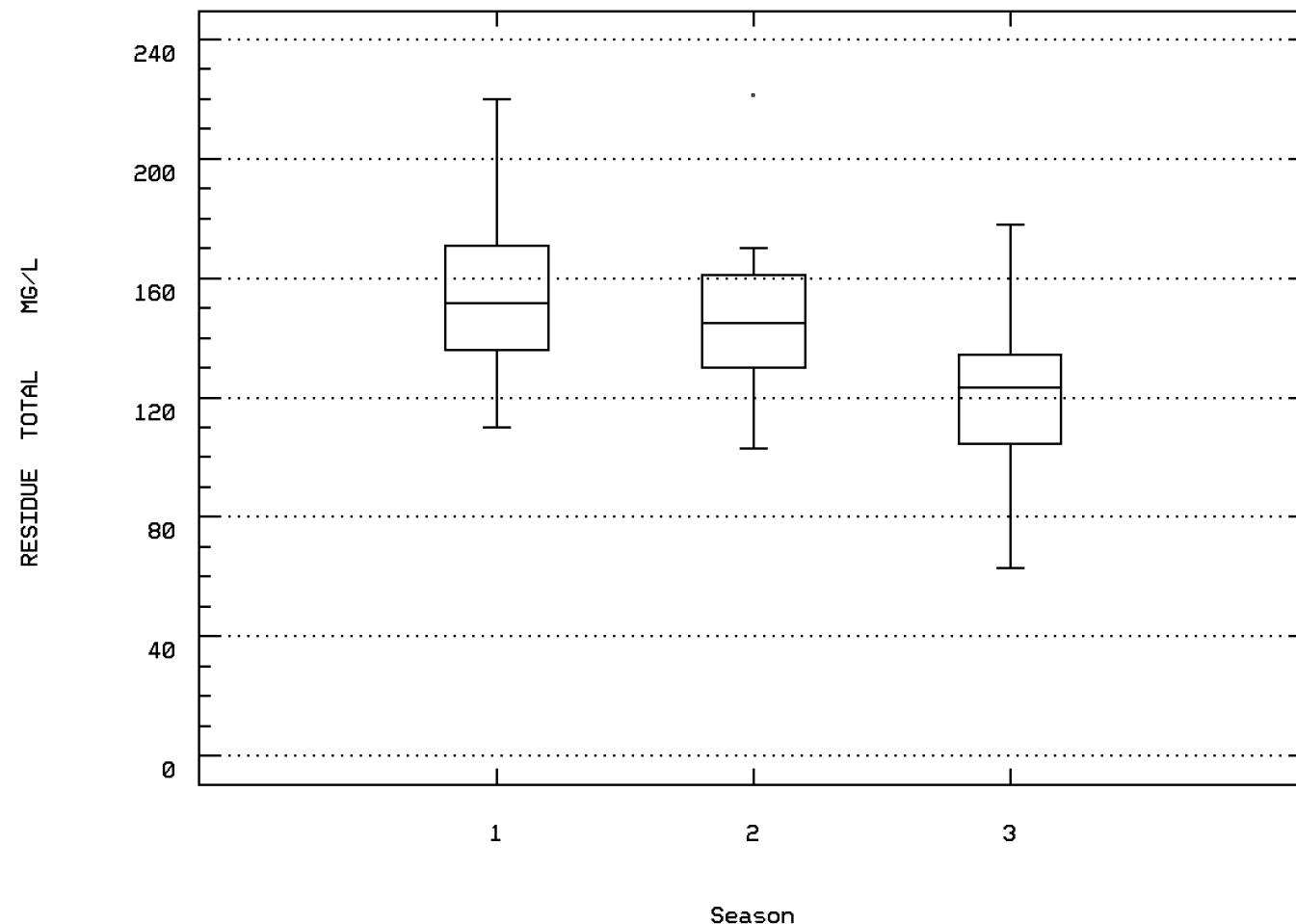
ALKALINITY, TOTAL (MG/L AS CACO3)



BUOY 157

Station: RICH0032 Parameter Code: 00500

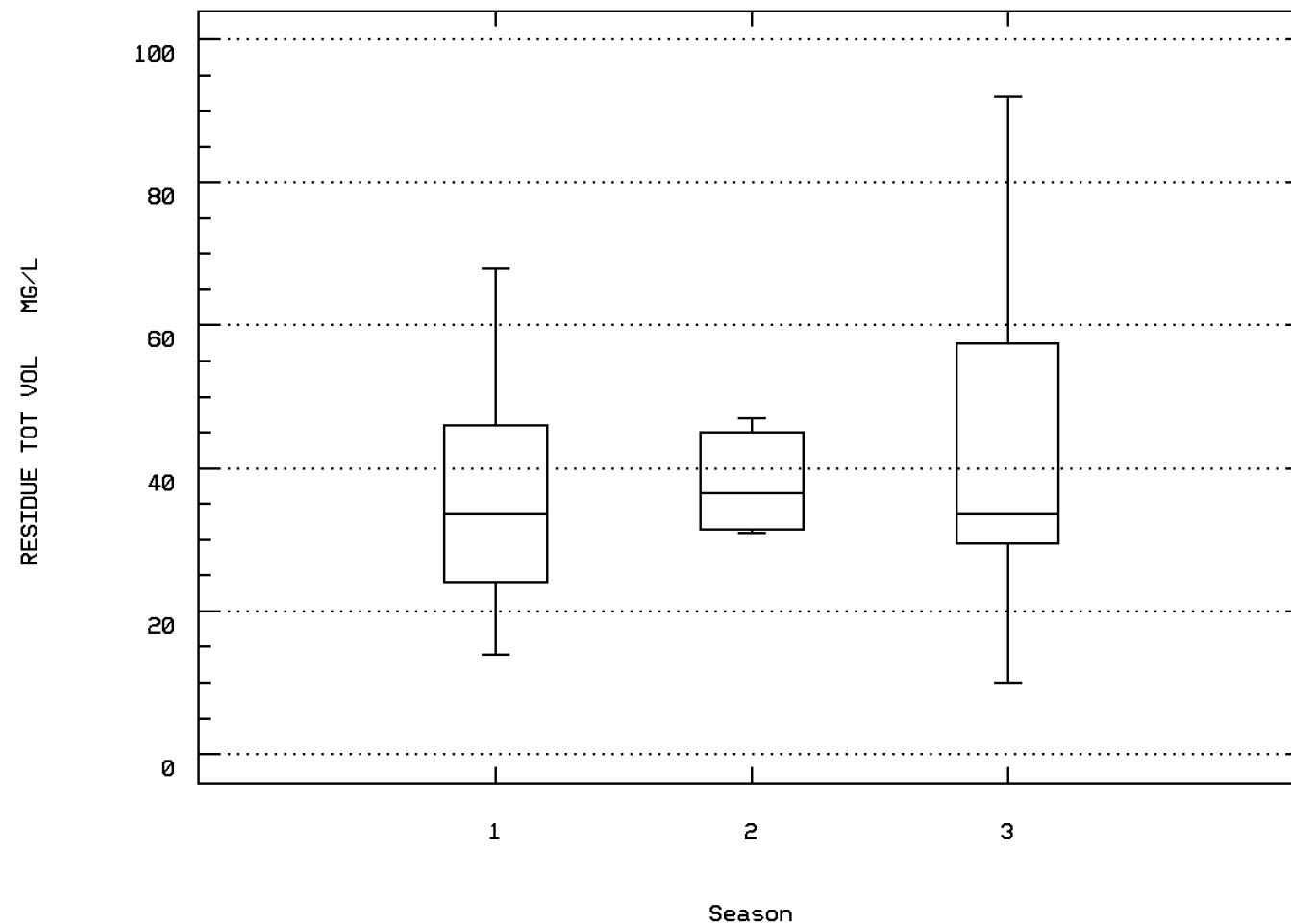
RESIDUE, TOTAL (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00505

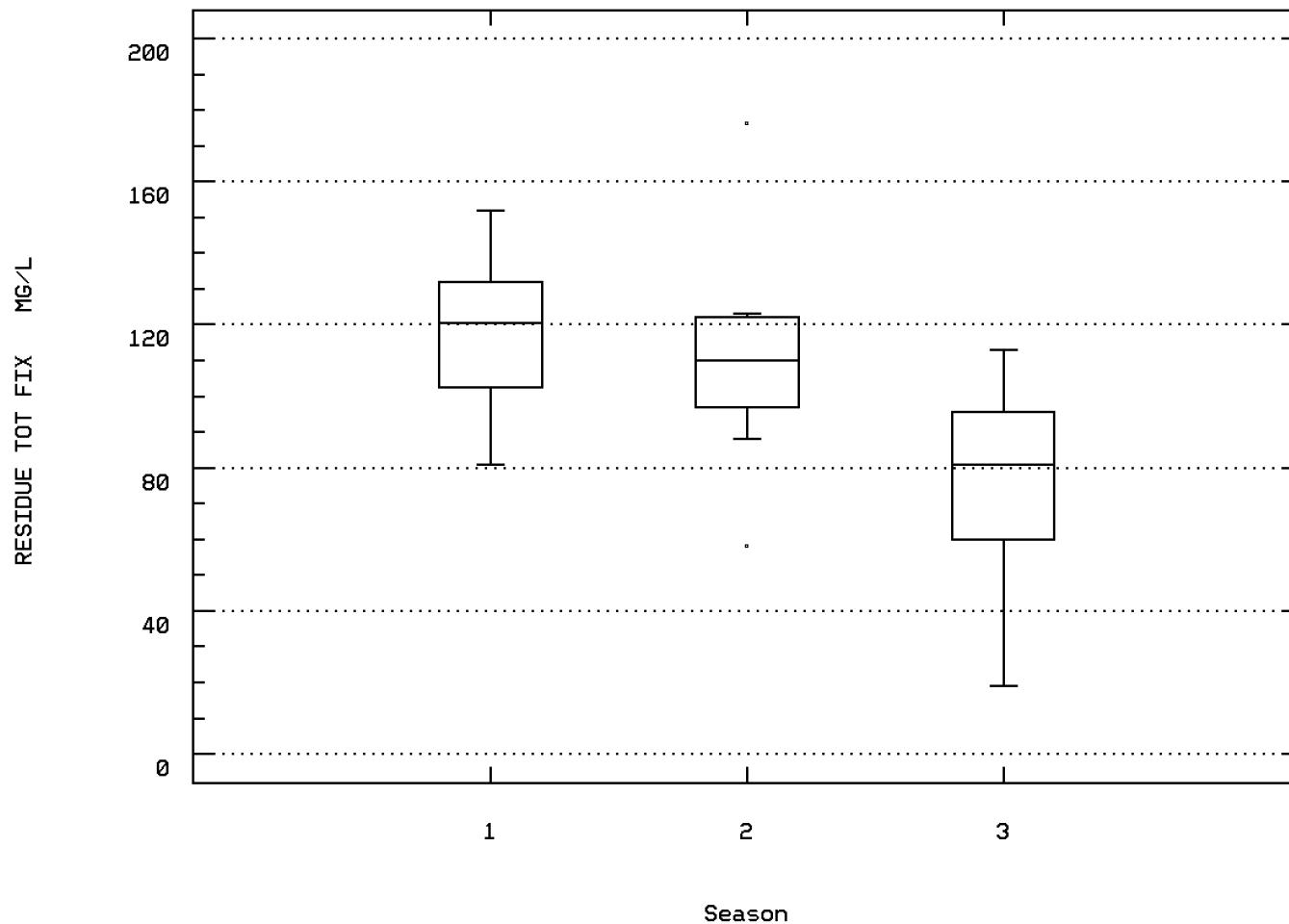
RESIDUE, TOTAL VOLATILE (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00510

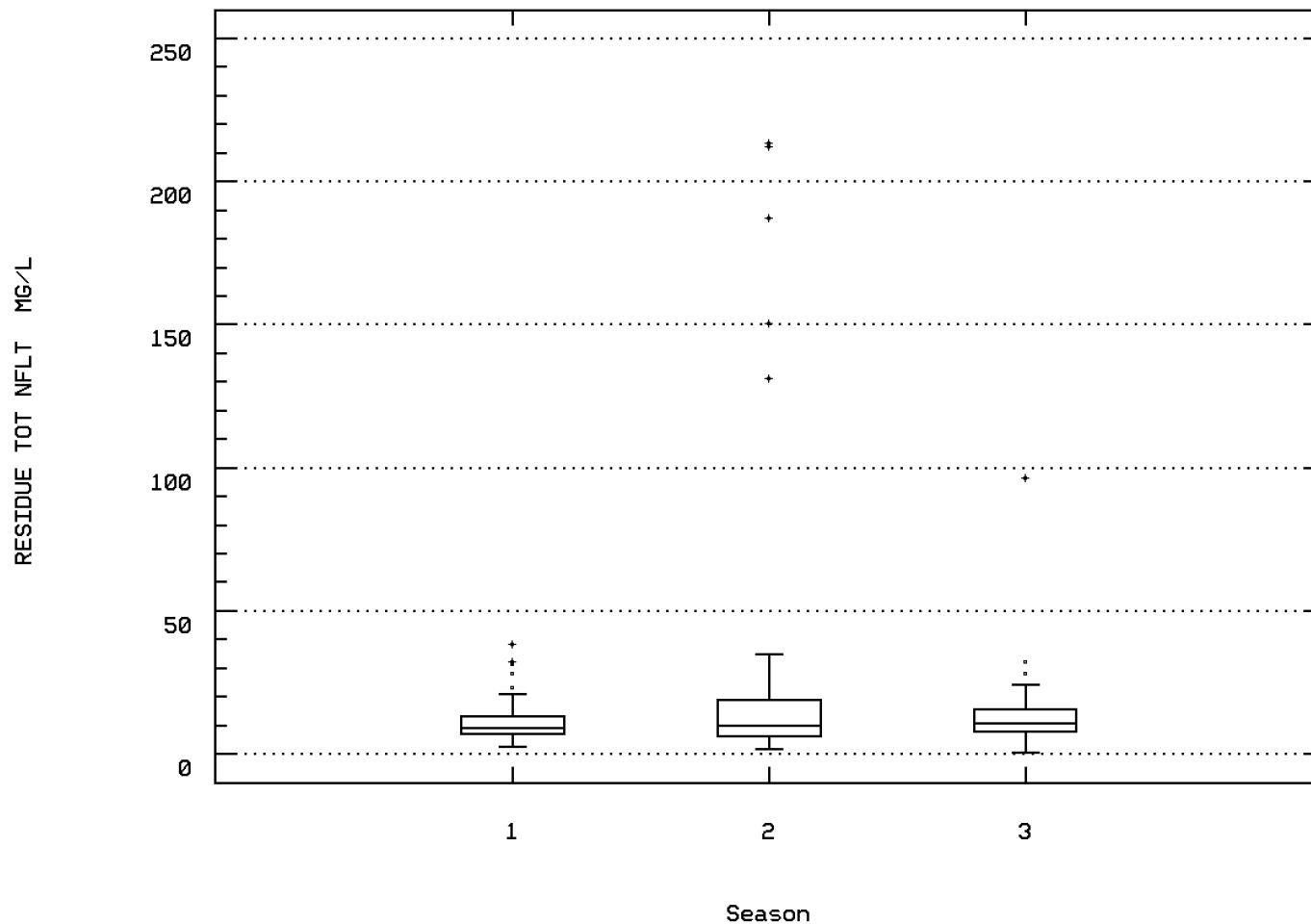
RESIDUE, TOTAL FIXED (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00530

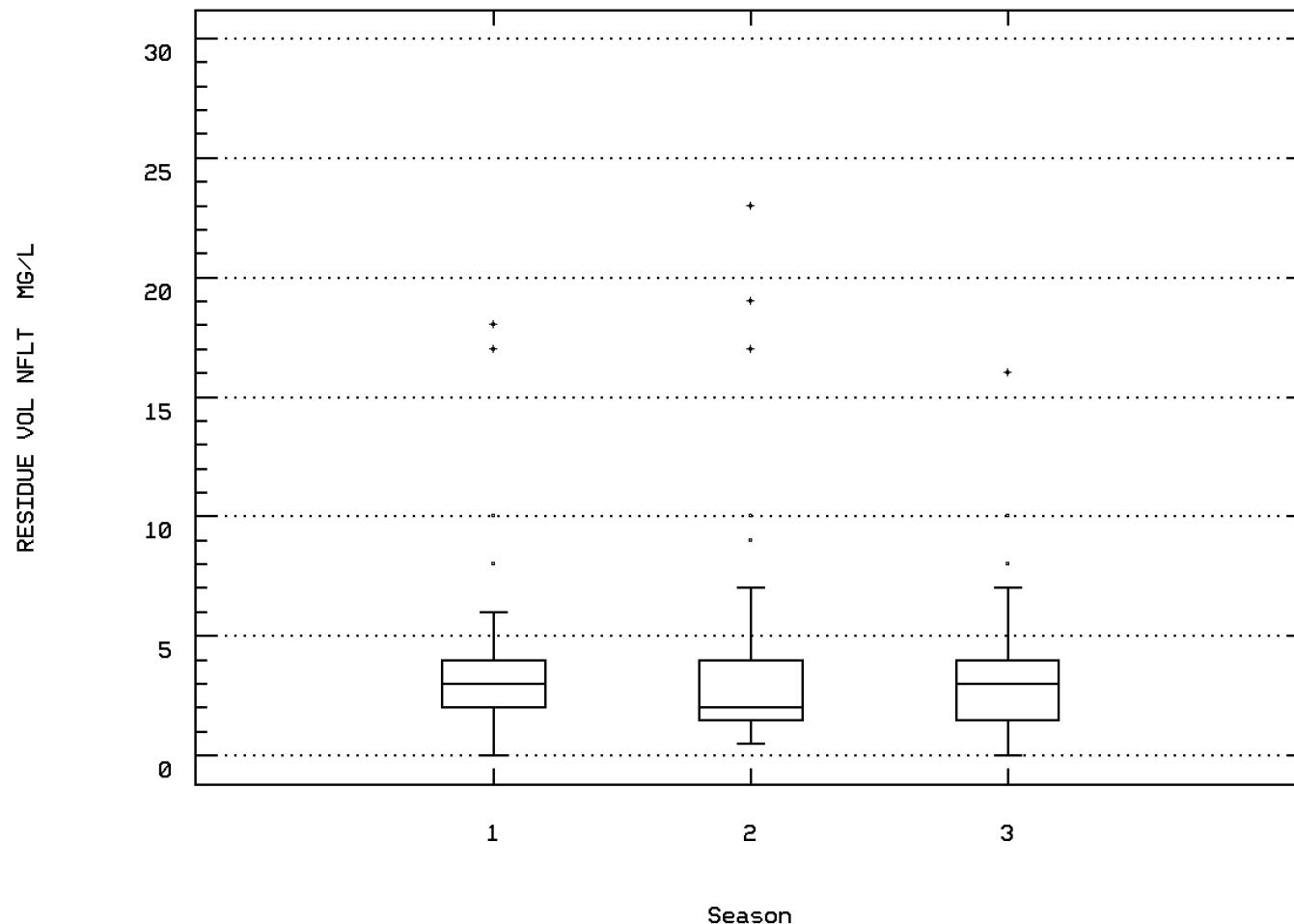
RESIDUE, TOTAL NONFILTRABLE (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00535

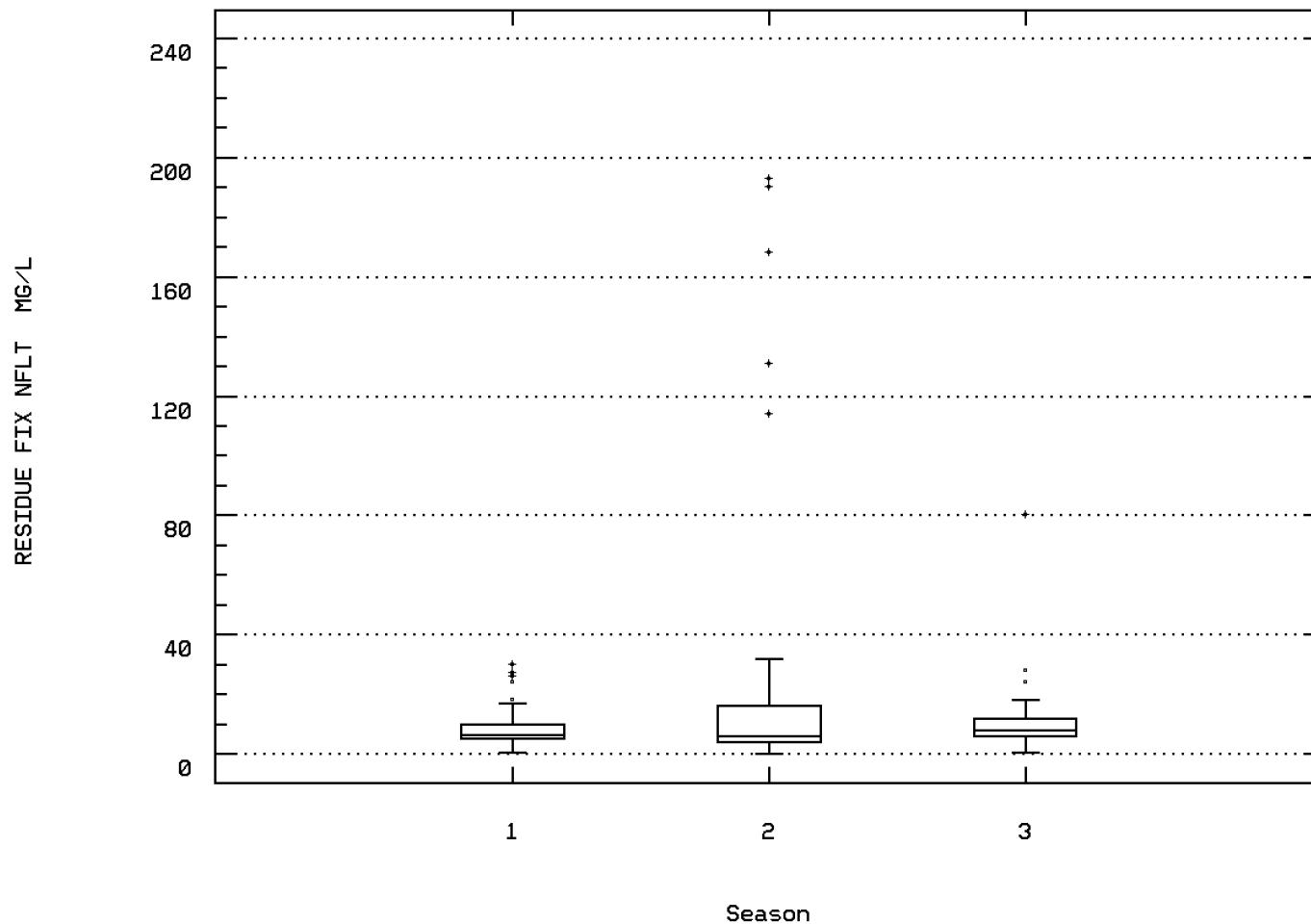
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



BUOY 157

Station: RICH0032 Parameter Code: 00540

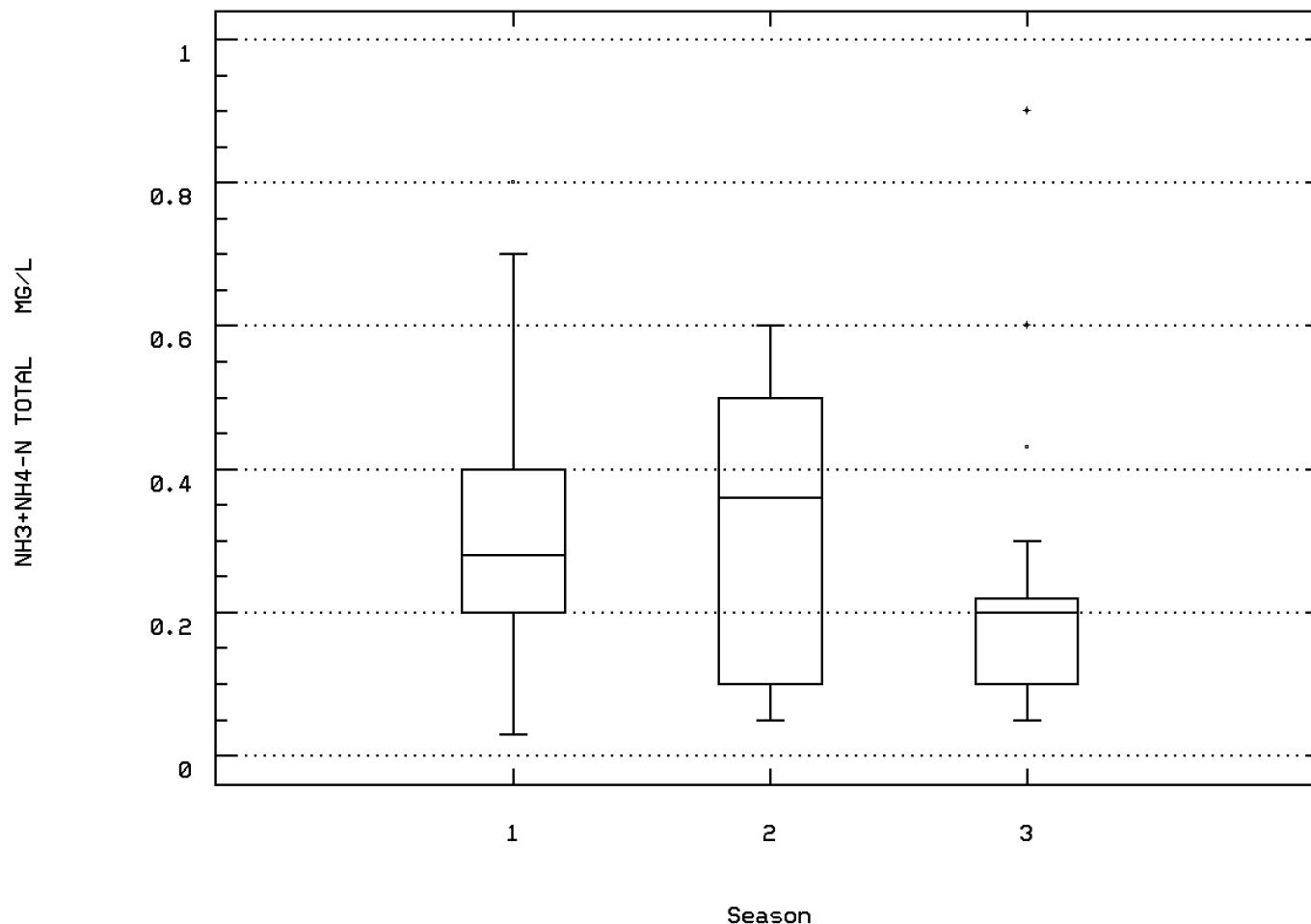
RESIDUE, FIXED NONFILTRABLE (MG/L)



BUOY 157

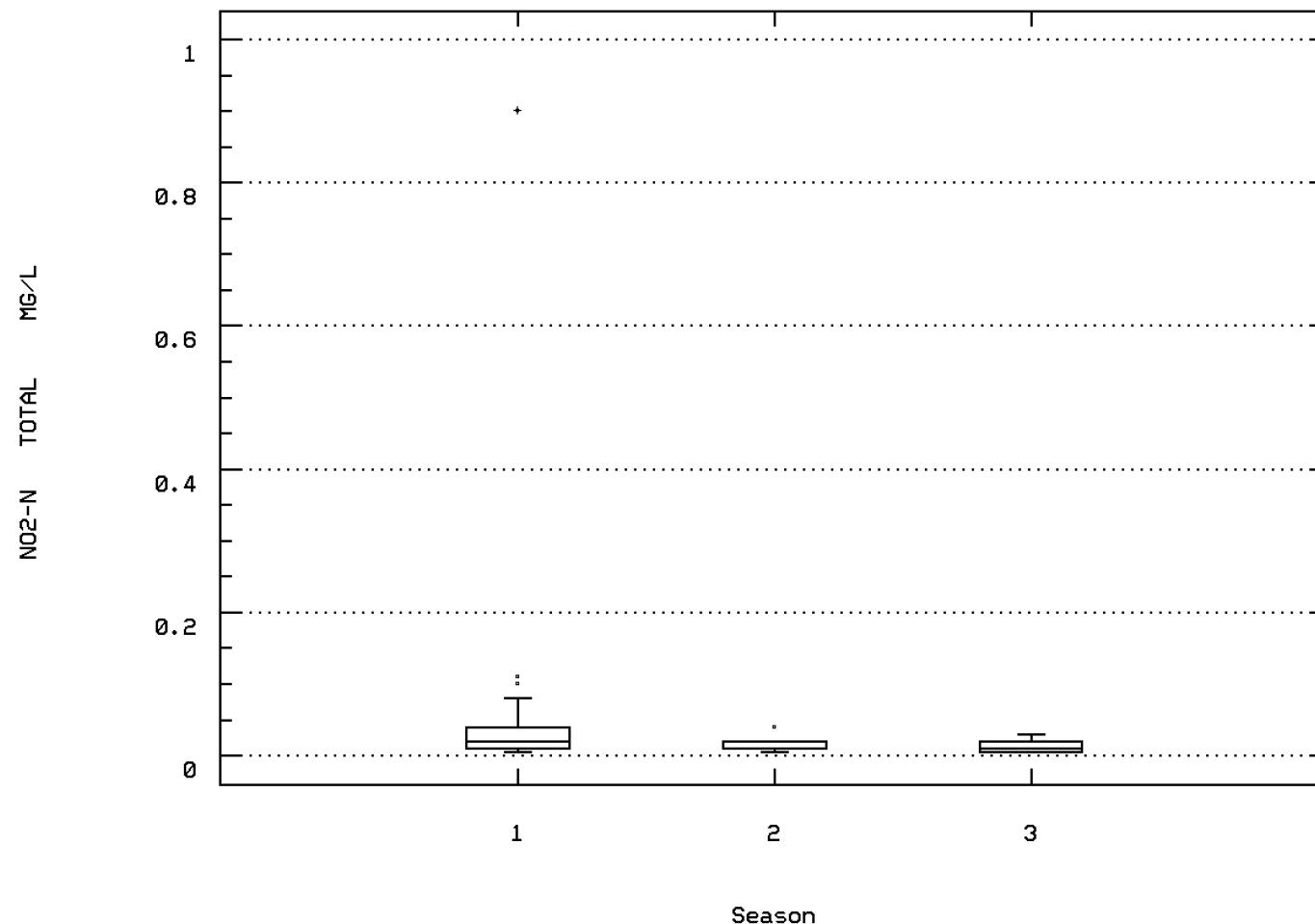
Station: RICH0032 Parameter Code: 00610

NITROGEN, AMMONIA, TOTAL (MG/L AS N)



Station: RICH0032 Parameter Code: 00615

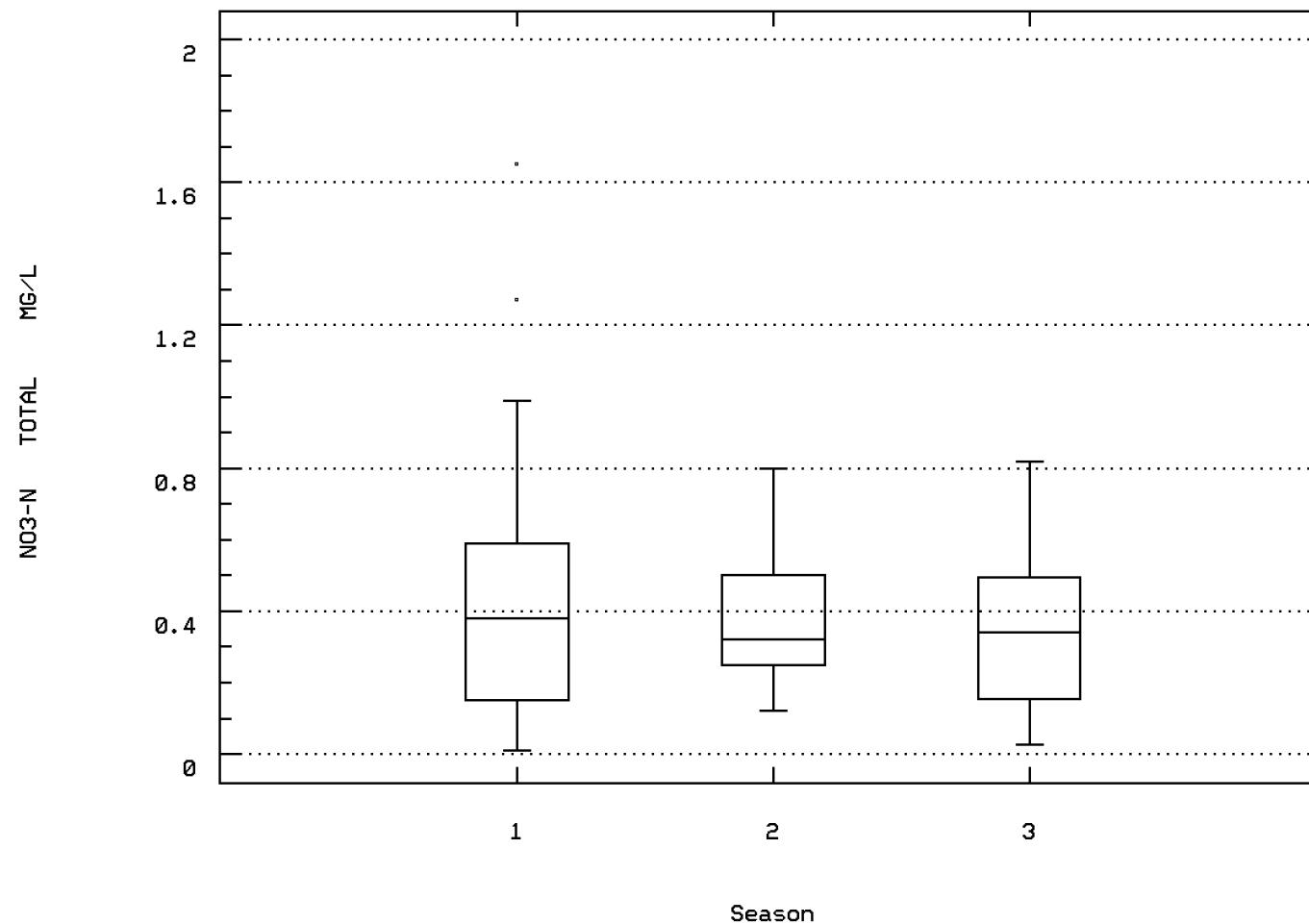
NITRITE NITROGEN, TOTAL (MG/L AS N)



BUOY 157

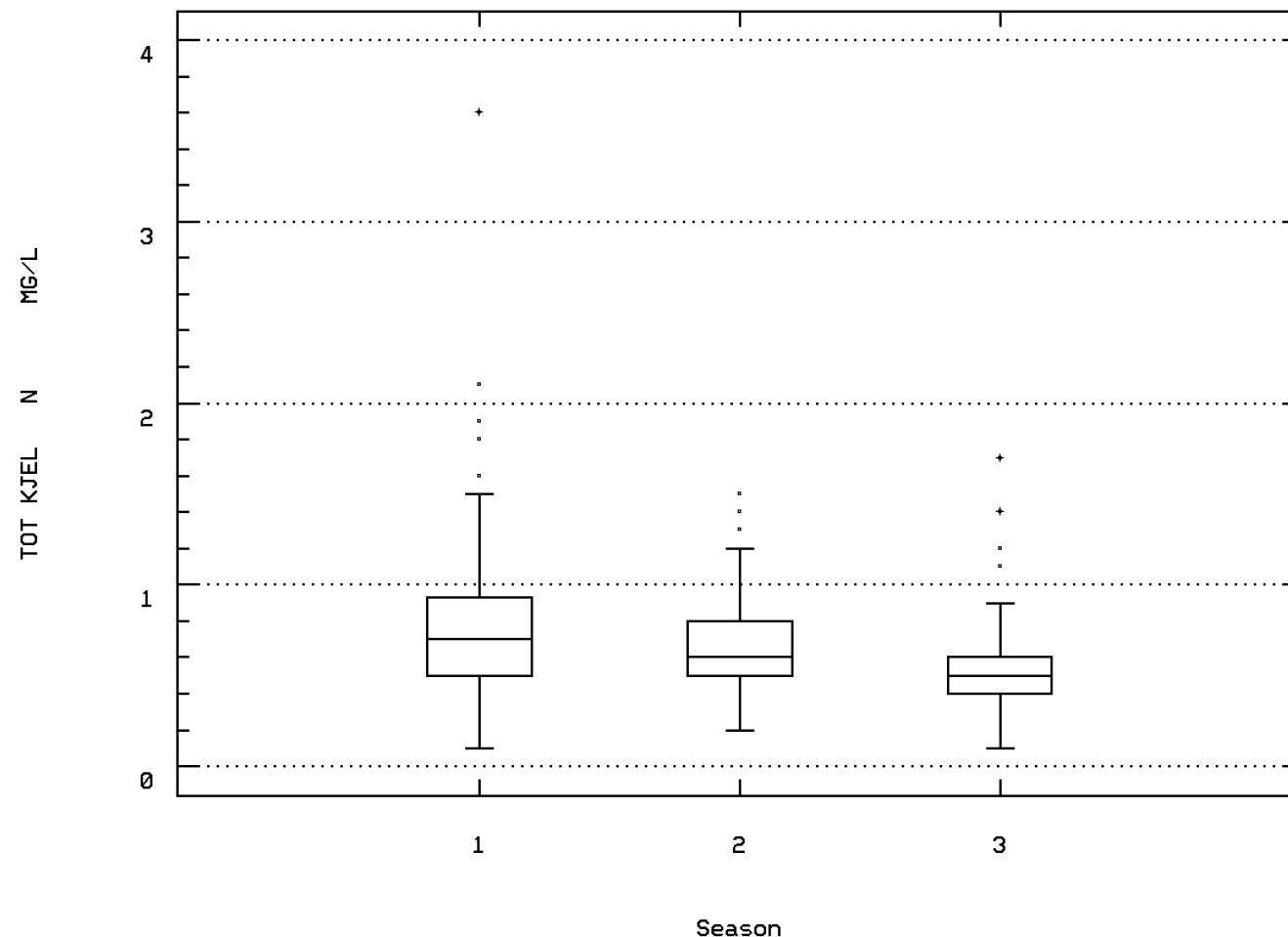
Station: RICH0032 Parameter Code: 00620

NITRATE NITROGEN, TOTAL (MG/L AS N)



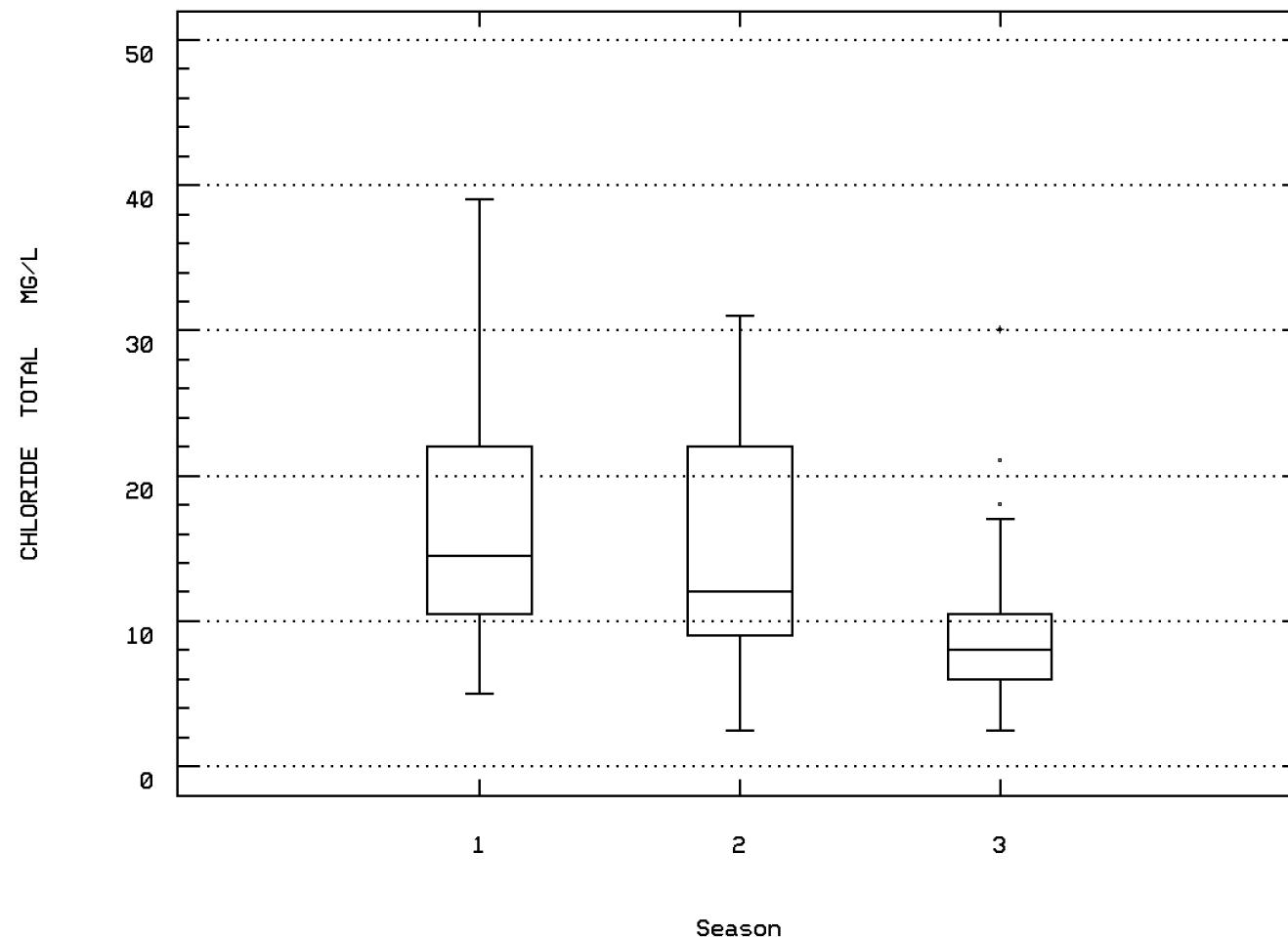
Station: RICH0032 Parameter Code: 00625

NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



Station: RICH0032 Parameter Code: 00940

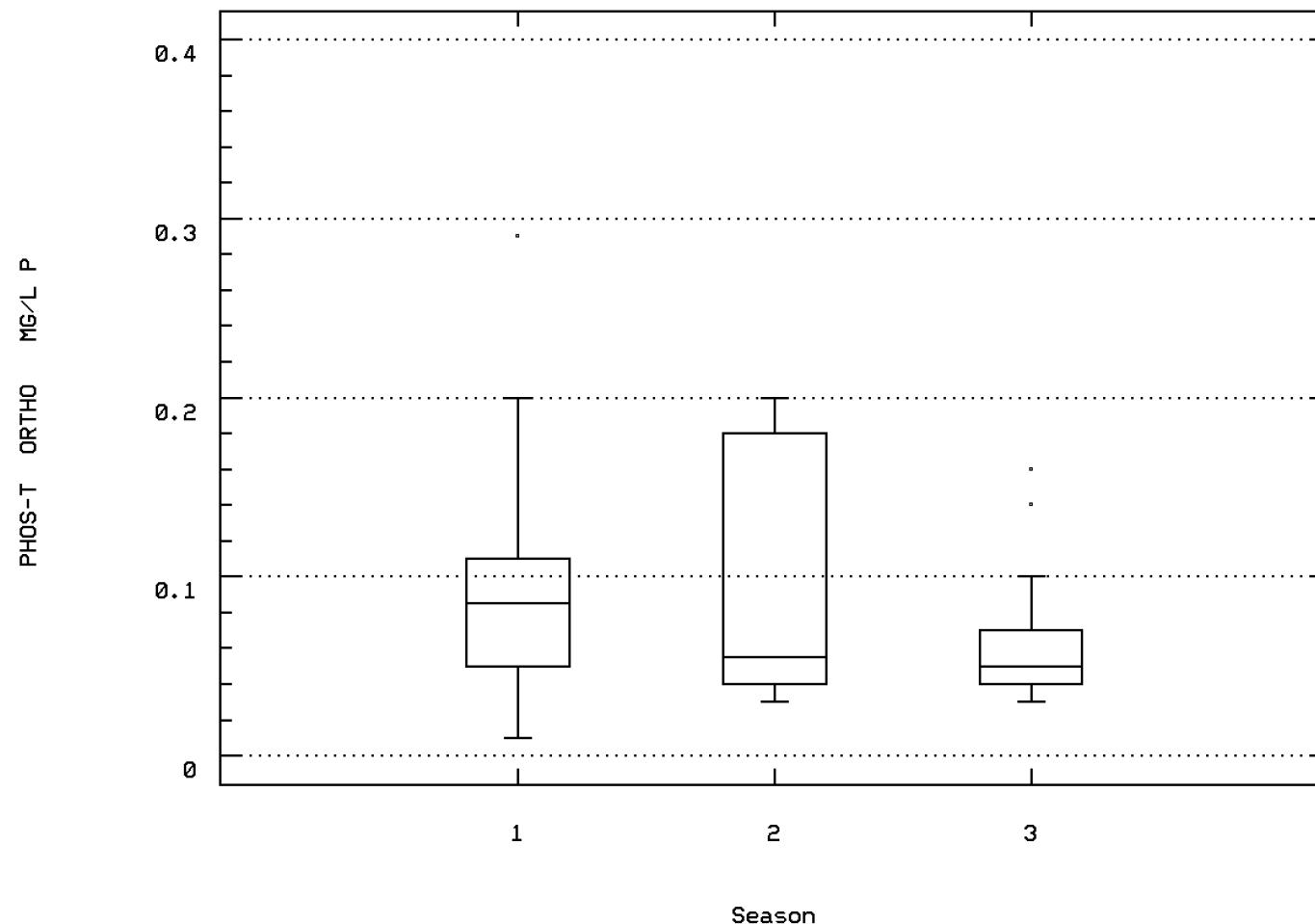
CHLORIDE, TOTAL IN WATER



BUOY 157

Station: RICH0032 Parameter Code: 70507

PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/



BUOY 157

## Station Inventory for Station: RICH0033

NPS Station ID: RICH0033  
Location: BUOY 157 JRWQMP STA.8  
Station Type: /TYP/A MBNT/STREAM  
RMI-Indexes:  
RMI-Miles:  
HUC: 02080206  
Major Basin: NORTH ATLANTIC  
Minor Basin: JAMES RIVER  
RF1 Index: 02080206045  
RF3 Index: 02080207005603.14  
Description:

LAT/LON: 37.403059/ -77.391948

Agency: CHESBAY  
FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
STORET Station ID(s): TF5.3  
Within Park Boundary: No

Date Created: 08/24/84

Depth of Water: 0  
Elevation: 0  
RF1 Mile Point: 10.120  
RF3 Mile Point: 4.30

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 19.60  
Distance from RF3: 0.32

On/Off RF1: ON  
On/Off RF3:

## Parameter Inventory for Station: RICH0033

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0034

NPS Station ID: RICH0034  
 Location: JAMES RIVER, OFF DEEP BOTTOM LANDING  
 Station Type: /TYPAB/AMBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.406393/ -77.305559

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-JMS091.00  
 Within Park Boundary: No

Date Created: 06/25/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0034

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/14/94-10/26/98	51	26.4	25.312	32.2	16.1	20.189	4.493	18.04	22.	28.8	30.86
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	47	219.	238.234	452.	121.	5153.357	71.787	153.	178.	290.	336.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/14/94-10/26/98	50	7.9	8.236	11.8	5.9	2.111	1.453	6.6	7.175	9.025	10.1
00400	PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.55	7.659	8.6	6.53	0.278	0.528	7.084	7.23	8.18	8.462
00400	CONVERTED PH (STANDARD UNITS)	07/14/94-10/26/98	51	7.55	7.377	8.6	6.53	0.36	0.6	7.084	7.23	8.18	8.462
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/14/94-10/26/98	51	0.028	0.042	0.295	0.003	0.003	0.056	0.003	0.007	0.059	0.082
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	51	78.	1151.843	16000.	9.	14265106.295	3776.918	10.8	20.	230.	1518.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	51	1.892	2.025	4.204	0.954	0.662	0.814	1.014	1.301	2.362	3.164
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	105.997								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0034

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00		
00400	PH	Fresh Chronic	9.	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00		
31615	FECAL COLIFORM, MPN	Other-Lo Lim.	6.5	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00		
		Other-Hi Lim.	200.	51	17	0.33	32	8	0.25	5	3	0.60	14	6	0.43		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0035

NPS Station ID: RICH0035	LAT/LON: 37.407615/ -77.380977	Agency: 21VASWCB	Date Created: / /
Location: AT MOUTH OF PETERSBURG BOAT HARBOR BELOW STP		FIPS State/County: 51730 VIRGINIA/PETERSBURG (CITY)	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): 2-APP010.32 /VA2-02-X0010/VA2-4X0010	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: 02-NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: 2-JAMES		ECO Region:	
RF1 Index: 02080206045	RF1 Mile Point: 9.900	Distance from RF1: 0.00	On/Off RF1: ON
RF3 Index: 02080207000304.53	RF3 Mile Point: 4.66	Distance from RF3: 0.03	On/Off RF3:
Description:			
VIRGINIA STATE WATER CONTROL BOARD	AMBIENT MONITORING	BASIN: 2 JAMES	REGION: 4 PIEDMONT
RIVER: APPOMATTOX RIVER	SECTION: 02	TOPO MAP #: 0134	TOPO MAP NAME: PETERSBURG, VA

## Parameter Inventory for Station: RICH0035

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/31/72-07/08/74	9	27.8	26.5	30.	19.	17.395	4.171	19.	23.35	30.	30.
00300 OXYGEN, DISSOLVED MG/L	07/31/72-07/08/74	11	7.	8.382	18.7	3.8	15.934	3.992	4.16	6.	10.2	17.08
00310 BOD, 5 DAY, 20 DEG C MG/L	07/31/72-07/31/72	1	2.4	2.4	2.4	2.4	0.	0.	**	**	**	**
00400 PH (STANDARD UNITS)	07/31/72-07/08/74	11	7.2	7.518	9.	6.5	0.892	0.944	6.52	6.8	8.5	9.
00400 CONVERTED PH (STANDARD UNITS)	07/31/72-07/08/74	11	7.2	6.995	9.	6.5	1.193	1.092	6.52	6.8	8.5	9.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/31/72-07/08/74	11	0.063	0.101	0.316	0.001	0.012	0.108	0.001	0.003	0.158	0.303
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/09/72-08/09/72	1	61.	61.	61.	61.	0.	0.	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/09/72-08/09/72	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	08/09/72-08/09/72	1	49.	49.	49.	49.	0.	0.	**	**	**	**
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/31/72-07/08/74	10	0.2	0.231	0.75	0.05	0.043	0.207	0.05	0.088	0.308	0.708
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	07/31/72-07/08/74	10	0.01	0.015	0.05	0.005	0.	0.015	0.005	0.005	0.023	0.048
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	07/31/72-07/08/74	10	0.17	0.202	0.67	0.01	0.034	0.184	0.01	0.115	0.25	0.628
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/31/72-07/08/74	10	0.6	0.58	0.9	0.3	0.028	0.169	0.31	0.475	0.7	0.88
00940 CHLORIDE, TOTAL IN WATER MG/L	08/09/72-08/09/72	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	07/31/72-08/09/72	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	07/31/72-05/03/73	4 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	07/31/72-05/03/73	4 ##	5.	6.25	10.	5.	6.25	2.5	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	07/31/72-10/04/72	3	10.	15.	30.	5.	175.	13.229	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/03/73	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	07/31/72-05/03/73	4 ##	7.5	7.5	10.	5.	8.333	2.887	**	**	**	**
31616 FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	07/31/72-07/08/74	11	100.	450.	2500.	50.	563500.	750.666	50.	50.	500.	2220.
31616 LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	07/31/72-07/08/74	11	2.	2.219	3.398	1.699	0.377	0.614	1.699	1.699	2.699	3.327
31616 GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	165.657								
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	07/31/72-07/08/74	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/31/72-07/08/74	10 ##	0.05	0.059	0.12	0.04	0.001	0.024	0.041	0.05	0.058	0.116
71900 MERCURY, TOTAL (UG/L AS HG)	07/31/72-05/03/73	4 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0035

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	11	1	0.09	6	1	0.17				5	0	0.00			
00400	PH	Fresh Chronic	9.	11	2	0.18	6	2	0.33				5	0	0.00			
		Other-Lo Lim.	6.5	11	1	0.09	6	0	0.00				5	1	0.20			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	10	0	0.00	5	0	0.00				5	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	10	0	0.00	5	0	0.00				5	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	1	0	0.00	1	0	0.00									
		Drinking Water	250.	1	0	0.00	1	0	0.00									
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1 &	1	1.00	1	1	1.00									
		Drinking Water	5.	1 &	1	1.00	1	1	1.00									
01034	CHROMIUM, TOTAL	Drinking Water	100.	4	0	0.00	3	0	0.00				1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	4	0	0.00	3	0	0.00				1	0	0.00			
		Drinking Water	1300.	4	0	0.00	3	0	0.00				1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	3	0	0.00	3	0	0.00									
		Drinking Water	15.	3	1	0.33	3	1	0.33									
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	4	0	0.00	3	0	0.00				1	0	0.00			
		Drinking Water	5000.	4	0	0.00	3	0	0.00				1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	11	5	0.45	6	2	0.33				5	3	0.60			
71900	MERCURY, TOTAL	Fresh Acute	2.4	4	0	0.00	3	0	0.00				1	0	0.00			
		Drinking Water	2.	4	0	0.00	3	0	0.00				1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0036

NPS

Station ID: RICH0036

Location: 100 YDS FROM MOUTH, ON LONE STAR CEMENT CO.LAND

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: 02-NORTH ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080206045

RF3 Index: 02080206135703.57

Description:

VIRGINIA STATE WATER CONTROL BOARD  
RIVER: KINGSLAND CREEKAMBIENT MONITORING  
SECTION: 07BASIN: 2 JAMES  
TOPO MAP #: 0132REGION: 4 PIEDMONT  
TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.407781/ -77.398337

Agency: 21VASWCB

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): 2-KSL000.18 /VA2-07-X0161/VA2-4X0161

Within Park Boundary: No

Date Created: / /

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 10.540

RF3 Mile Point: 4.02

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 11.90

Distance from RF3: 0.01

On/Off RF1: OFF

On/Off RF3:

## Parameter Inventory for Station: RICH0036

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	161	17.	16.619	34.5	0.7	70.32	8.386	5.1	9.5	24.	26.66
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-06/20/90	17	6.1	16.788	148.	2.6	1169.939	34.204	3.72	4.75	13.4	47.2
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	104	91.	105.423	356.	45.	2847.936	53.366	63.	73.	119.5	161.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	8	83.	87.125	106.	74.	166.696	12.911	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	159	9.6	9.595	15.2	1.4	5.047	2.247	6.8	8.	11.2	12.7
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	113	2.	1.969	9.	0.5	1.952	1.397	1.	1.	2.	4.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	112	17.	18.134	42.	3.	56.64	7.526	10.	13.	21.	29.7
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	160	6.8	6.834	9.5	5.	0.51	0.714	6.	6.483	7.098	7.782
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	160	6.8	6.305	9.5	5.	0.791	0.89	6.	6.483	7.097	7.782
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	160	0.158	0.496	10.	0.	1.618	1.272	0.017	0.08	0.329	1.
00403	PH, LAB, STANDARD UNITS SU	01/23/80-06/20/90	20	6.4	6.46	7.4	6.1	0.119	0.345	6.1	6.2	6.675	6.89
00403	CONVERTED PH, LAB, STANDARD UNITS	01/23/80-06/20/90	20	6.389	6.358	7.4	6.1	0.13	0.361	6.1	6.2	6.675	6.89
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/23/80-06/20/90	20	0.409	0.439	0.794	0.04	0.067	0.258	0.129	0.212	0.631	0.794
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/23/80-06/20/90	20	10.	10.4	33.	4.	39.305	6.269	4.1	7.	12.	14.9
00500	RESIDUE, TOTAL (MG/L)	08/15/79-06/20/90	17	84.	97.647	366.	63.	4925.118	70.179	67.8	71.	85.5	158.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	08/15/79-06/20/90	17	27.	29.706	72.	14.	168.596	12.984	15.6	21.5	33.5	44.8
00510	RESIDUE, TOTAL FIXED (MG/L)	08/15/79-06/20/90	17	52.	67.941	294.	37.	3500.184	59.162	41.	46.5	64.5	120.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	112	7.5	19.897	326.	0.5	2373.856	48.722	2.5	2.5	11.75	28.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	112	2.75	7.665	282.	0.	732.592	27.066	1.	2.125	5.	10.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	112	3.	12.866	284.	0.	1205.77	34.724	1.	2.5	8.	19.1
00545	RESIDUE, SETTLEABLE (ML/L)	10/02/74-06/21/79	34 ##	0.05	0.132	2.	0.05	0.117	0.342	0.05	0.05	0.05	0.25
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	151 ##	0.05	0.104	1.5	0.02	0.025	0.157	0.05	0.05	0.1	0.2
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	151 ##	0.005	0.019	0.5	0.005	0.003	0.055	0.005	0.005	0.01	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	138	0.36	0.364	2.239	0.005	0.06	0.244	0.117	0.22	0.45	0.563
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	147	0.4	0.545	5.	0.05	0.36	0.6	0.2	0.3	0.6	0.9
00630	NITRITE PLUS NITRATE, TOTAL 1 DET, (MG/L AS N)	06/23/77-06/21/79	13	0.27	0.298	0.5	0.17	0.011	0.107	0.174	0.195	0.39	0.472
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	106	0.1	0.105	0.7	0.005	0.008	0.092	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	109	0.03	0.042	0.33	0.005	0.002	0.045	0.01	0.02	0.05	0.07
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	105	8.	8.164	19.	1.	12.172	3.489	4.68	6.	9.	12.4
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-06/20/90	17	20.	21.059	40.	14.	34.059	5.836	15.6	18.	23.	28.8
00940	CHLORIDE, TOTAL IN WATER MG/L	06/23/77-06/20/90	18	11.5	12.778	21.	8.	15.948	3.993	8.9	10.	16.25	20.1
00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	16	9.5	9.	11.	5.	2.533	1.592	6.4	8.	10.	11.
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	17	0.1	0.092	0.16	0.05	0.001	0.035	0.05	0.05	0.12	0.136

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00955	SILICA, DISSOLVED (MG/L AS SI02)	04/19/89-06/20/90	14	11.95	12.086	16.5	8.6	3.96	1.99	9.3	11.125	12.775	15.55
01002	ARSENIC, TOTAL (UG/L AS AS)	06/23/77-03/28/85	3	1.	2.167	5.	0.5	6.083	2.466	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	2	3.38	3.38	5.9	0.86	12.701	3.564	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	06/23/77-03/28/85	4##	2.75	2.75	5.	0.5	6.75	2.598	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	2##	0.085	0.085	0.1	0.07	0.	0.021	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	2	7.07	7.07	7.5	6.64	0.37	0.608	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/26/75-03/28/85	5##	5.	4.1	5.	0.5	4.05	2.012	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/26/75-03/28/85	5##	5.	5.	5.	0.	0.	0.	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	2	4.355	4.355	5.2	3.51	1.428	1.195	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/26/75-03/28/85	5	1.	1.9	4.	0.5	2.3	1.517	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	2##	2.3	2.3	3.9	0.7	5.12	2.263	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	03/26/75-11/17/77	3##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	2	1.7	1.7	2.	1.4	0.18	0.424	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/26/75-03/28/85	5	10.	14.	30.	5.	117.5	10.84	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	2	16.65	16.65	17.3	16.	0.845	0.919	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	153	200.	625.817	8000.	50.	1344608.703	1159.573	50.	50.	650.	1700.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	153	2.301	2.329	3.903	1.699	0.384	0.62	1.699	1.699	2.812	3.23
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	213.098								
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39315	O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492	PCB - 1322 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1442 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.1	0.	0.	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.1	0.	0.	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	10/02/74-06/21/79	42 ##	0.05	0.131	0.7	0.05	0.022	0.148	0.05	0.05	0.1	0.37
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/02/74-06/21/79	41	0.04	0.081	0.7	0.005	0.017	0.129	0.005	0.02	0.095	0.17
71900	MERCURY, TOTAL (UG/L AS HG)	03/26/75-03/28/85	5 ##	0.25	0.21	0.25	0.15	0.003	0.055	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	2 ##	0.063	0.063	0.1	0.025	0.003	0.053	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0036

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	17	1	0.06	3	0	0.00	6	1	0.17	8	0	0.00
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	159	2	0.01	44	2	0.05	65	0	0.00	50	0	0.00
00400	PH	Fresh Chronic	9.	160	1	0.01	44	1	0.02	64	0	0.00	52	0	0.00
00403	PH, LAB	Other-Lo Lim.	6.5	160	60	0.38	44	12	0.27	64	33	0.52	52	15	0.29
00615	NITRITE NITROGEN, TOTAL AS N	Fresh Chronic	9.	20	0	0.00	3	0	0.00	9	0	0.00	8	0	0.00
00620	NITRATE NITROGEN, TOTAL AS N	Other-Lo Lim.	6.5	20	12	0.60	3	1	0.33	9	7	0.78	8	4	0.50
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	1.	151	0	0.00	41	0	0.00	64	0	0.00	46	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Drinking Water	10.	138	0	0.00	39	0	0.00	60	0	0.00	39	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	10.	13	0	0.00	2	0	0.00	4	0	0.00	7	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	860.	18	0	0.00	1	0	0.00	8	0	0.00	9	0	0.00
01002	ARSENIC, TOTAL	Drinking Water	250.	18	0	0.00	1	0	0.00	8	0	0.00	9	0	0.00
01027	CADMIUM, TOTAL	Drinking Water	250.	16	0	0.00	1	0	0.00	7	0	0.00	8	0	0.00
01034	CHROMIUM, TOTAL	Fresh Acute	5.	17	0	0.00	2	0	0.00	7	0	0.00	8	0	0.00
01042	COPPER, TOTAL	Drinking Water	5.	2 &	0	0.00	2	0	0.00	2	0	0.00	2	0	0.00
01051	LEAD, TOTAL	Drinking Water	100.	5	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00
01065	NICKEL, DISSOLVED	Fresh Acute	18.	5	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00
01067	NICKEL, TOTAL	Drinking Water	1300.	5	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00
01092	ZINC, TOTAL	Fresh Acute	82.	5	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Drinking Water	1400.	5	0	0.00	1	0	0.00	2	0	0.00	2	0	0.00
34356	ENDOSUFAN, BETA, TOTAL	Fresh Acute	5000.	3	0	0.00	1	0	0.00	2	0	0.00	2	0	0.00
34361	ENDOSUFAN, ALPHA, TOTAL	Drinking Water	200.	153	78	0.51	42	23	0.55	64	24	0.38	47	31	0.66
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39300	P,P' DDT IN WHOLE WATER SAMPLE	Drinking Water	0.22	1	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39310	P,P'DDD IN WHOLE WATER SAMPLE	Fresh Acute	1.1	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39320	P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	0.6	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39330	ALDRIN IN WHOLE WATER SAMPLE	1050.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00	
39340	GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	3.	4	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.	1	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39380	DIELDRIN IN WHOLE WATER SAMPLE	Drinking Water	2.4	2	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39390	ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39400	TOXAPHENE IN WHOLE WATER SAMPLE	Drinking Water	0.18	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39410	HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
		Drinking Water	0.4	1	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0036

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00										1	0	0.00
		Drinking Water	0.2	1	0	0.00										1	0	0.00
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	3.	1	0	0.00										1	0	0.00
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00						
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00												
		Drinking Water	1.	2	0	0.00												
39730	2,4-D IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00										1	0	0.00
		Drinking Water	50.	1	0	0.00										1	0	0.00
39760	SILVEX IN WHOLE WATER SAMPLE	Fresh Acute	2.4	5	0	0.00				1	0	0.00	4	0	0.00			
		Drinking Water	2.	5	0	0.00				1	0	0.00	4	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	5	0	0.00												
		Drinking Water	2.	5	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1974 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	3	16.7	19.067	26.1	14.4	38.423	6.199	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	3	9.2	9.067	10.6	7.4	2.573	1.604	**	**	**	**
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	3	6.5	6.5	7.	6.	0.25	0.5	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	3	6.5	6.326	7.	6.	0.295	0.544	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	10/02/74-06/20/90	3	0.316	0.472	1.	0.1	0.221	0.47	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	3	0.1	0.55	1.5	0.05	0.678	0.823	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	3 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	3	0.32	0.225	0.35	0.005	0.037	0.191	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	3	0.7	1.1	2.299	0.3	1.119	1.058	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	3 ##	50.	133.333	300.	50.	20833.333	144.338	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	3 ##	1.699	1.958	2.477	1.699	0.202	0.449	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	90.856								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	9	17.8	16.	25.6	5.6	42.083	6.487	5.6	10.55	20.55	25.6
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	9	10.	9.289	12.	6.8	3.671	1.916	6.8	7.4	11.	12.
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	9	6.5	6.233	7.	5.	0.568	0.753	5.	5.5	6.8	7.
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	9	6.5	5.605	7.	5.	1.012	1.006	5.	5.5	6.8	7.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	10/02/74-06/20/90	9	0.316	2.485	10.	0.1	18.222	4.269	0.1	0.158	5.5	10.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	7	0.1	0.093	0.2	0.05	0.003	0.053	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	7 ##	0.005	0.007	0.02	0.005	0.	0.006	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	7	0.32	0.266	0.44	0.05	0.025	0.158	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	7	0.4	0.457	0.9	0.2	0.063	0.251	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	8 ##	50.	462.5	3300.	50.	1314821.429	1146.657	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	8 ##	1.699	1.964	3.519	1.699	0.406	0.637	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	92.054								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	7	22.8	20.786	32.2	7.2	74.355	8.623	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	7	8.	6.886	9.8	1.4	9.638	3.105	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	7	7.	7.129	8.3	6.5	0.326	0.571	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	7	7.	6.926	8.3	6.5	0.374	0.611	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	10/02/74-06/20/90	7	0.1	0.119	0.316	0.005	0.01	0.099	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	7	0.3	0.329	0.7	0.1	0.042	0.206	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	7	0.02	0.056	0.16	0.005	0.004	0.064	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	7	0.39	0.647	2.239	0.29	0.499	0.707	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	7	0.7	1.214	2.5	0.1	1.034	1.017	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	6 ##	50.	266.667	1200.	50.	212666.667	461.158	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	6 ##	1.699	2.029	3.079	1.699	0.323	0.568	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	106.991								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	12	13.5	13.167	32.	1.	113.081	10.634	1.03	1.725	22.	29.3
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	12	8.9	9.1	14.	5.6	7.333	2.708	5.6	6.5	10.9	13.7
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	12	7.	6.95	7.8	5.5	0.29	0.539	5.89	6.85	7.	7.71
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	12	7.	6.453	7.8	5.5	0.559	0.748	5.89	6.85	7.	7.71
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	12	0.1	0.352	3.162	0.016	0.785	0.886	0.021	0.1	0.144	2.261
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	11	0.3	0.255	0.5	0.05	0.026	0.162	0.05	0.1	0.4	0.48
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	11	0.01	0.03	0.19	0.005	0.003	0.054	0.005	0.005	0.03	0.16
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	5	0.25	0.29	0.51	0.15	0.025	0.157	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	11	0.5	0.636	1.099	0.2	0.098	0.314	0.22	0.4	1.	1.079
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	100.	259.091	1400.	50.	163409.091	404.239	50.	50.	300.	1220.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	2.	2.102	3.146	1.699	0.246	0.496	1.699	1.699	2.477	3.057
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	126.37								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	9	15.5	15.356	25.	0.7	79.388	8.91	0.7	7.5	25.	25.
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	9	8.4	8.756	15.2	6.2	8.118	2.849	6.2	6.8	9.9	15.2
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	9	6.5	6.822	7.5	6.	0.322	0.567	6.	6.45	7.5	7.5
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	9	6.5	6.549	7.5	6.	0.406	0.637	6.	6.45	7.5	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	9	0.316	0.282	1.	0.032	0.094	0.307	0.032	0.032	0.357	1.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	9##	0.05	0.072	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	9##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	4	0.25	0.293	0.46	0.21	0.013	0.114	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	9	0.3	0.328	0.6	0.05	0.031	0.175	0.05	0.25	0.45	0.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	9##	50.	338.889	2200.	50.	494861.111	703.464	50.	50.	250.	2200.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	9##	1.699	2.068	3.342	1.699	0.316	0.563	1.699	1.699	2.389	3.342
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	117.052								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	10	14.	14.2	24.	3.	53.789	7.334	3.1	8.5	21.875	23.9
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	5	57.	73.2	115.	52.	779.2	27.914	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	10	9.15	9.61	13.2	6.4	4.303	2.074	6.55	8.35	11.8	13.06
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	5	2.	3.	6.	1.	4.	2.	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	5	32.	29.6	42.	10.	139.3	11.803	**	**	**	**
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	10	6.5	6.47	7.3	6.	0.127	0.356	6.	6.3	6.5	7.22
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	10	6.5	6.362	7.3	6.	0.14	0.374	6.	6.3	6.5	7.22
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	10	0.316	0.435	1.	0.05	0.097	0.311	0.077	0.316	0.549	1.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	5	13.	16.6	30.	5.	97.3	9.864	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	5	5.	4.8	8.	1.	6.2	2.49	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	5	8.	11.8	25.	4.	70.7	8.408	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	10##	0.05	0.115	0.5	0.05	0.021	0.143	0.05	0.05	0.125	0.47
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	10##	0.005	0.051	0.37	0.005	0.013	0.114	0.005	0.005	0.04	0.34
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	8	0.34	0.334	0.88	0.005	0.067	0.259	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	10	0.4	0.49	1.2	0.2	0.085	0.292	0.21	0.3	0.625	1.15
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5##	0.05	0.12	0.4	0.05	0.025	0.157	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.03	0.088	0.33	0.01	0.019	0.137	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	5	17.	16.	19.	10.	12.	3.464	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	9	100.	361.111	1000.	50.	147986.111	384.69	50.	50.	750.	1000.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	9	2.	2.27	3.	1.699	0.312	0.558	1.699	1.699	2.866	3.
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	186.274								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1980 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	12	19.	19.125	34.5	6.5	91.869	9.585	6.8	9.75	26.5	34.35
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	122.	127.636	231.	49.	4221.255	64.971	49.8	68.	177.	229.2
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	12	10.	10.242	14.2	7.	3.772	1.942	7.3	8.8	11.625	13.54
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	11	2.	2.818	9.	1.	4.764	2.183	1.	2.	3.	7.8
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	11	15.	16.636	33.	11.	33.455	5.784	11.4	14.	18.	30.
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	12	6.8	6.892	9.5	6.	0.803	0.896	6.09	6.4	7.05	8.81
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	12	6.8	6.547	9.5	6.	0.932	0.966	6.09	6.4	7.05	8.81
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	12	0.158	0.284	1.	0.	0.077	0.278	0.019	0.091	0.398	0.85
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	11.	14.409	62.	2.5	287.591	16.959	2.5	2.5	14.	54.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	4.	5.318	19.	0.	30.264	5.501	0.	2.5	6.	17.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	5.	9.773	56.	2.5	243.418	15.602	2.5	2.5	9.	47.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	11 ##	0.05	0.068	0.2	0.05	0.002	0.046	0.05	0.05	0.05	0.18
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	11 ##	0.005	0.008	0.02	0.005	0.	0.006	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	11	0.43	0.434	0.8	0.025	0.063	0.251	0.048	0.19	0.7	0.78
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	11	0.4	0.336	0.8	0.1	0.039	0.196	0.1	0.2	0.4	0.72
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.127	0.3	0.05	0.007	0.085	0.05	0.05	0.2	0.28
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.03	0.034	0.06	0.01	0.	0.019	0.01	0.02	0.05	0.06
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	10.	10.727	16.	6.	9.418	3.069	6.4	8.	13.	15.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	200.	390.909	1600.	50.	233909.091	483.641	50.	50.	600.	1440.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	2.301	2.278	3.204	1.699	0.317	0.563	1.699	1.699	2.778	3.144
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	189.808								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	10	19.	17.6	27.5	4.	90.711	9.524	4.05	7.125	26.625	27.45
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	108.	134.9	312.	89.	4553.878	67.482	89.8	98.5	152.75	298.4
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	10	8.85	9.18	12.8	5.8	4.882	2.209	5.96	7.7	10.65	12.78
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	10	2.	1.7	3.	1.	0.456	0.675	1.	1.	2.	2.9
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	10	15.5	14.1	19.	6.	16.989	4.122	6.3	11.25	17.25	18.9
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	10	6.5	6.81	8.6	5.7	0.879	0.937	5.74	6.25	7.325	8.57
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	10	6.5	6.329	8.6	5.7	1.136	1.066	5.74	6.25	7.325	8.57
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	10	0.316	0.469	1.995	0.003	0.35	0.592	0.003	0.076	0.574	1.875
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	8.	7.9	13.	2.5	12.933	3.596	2.5	5.125	10.5	12.9
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	2.25	2.9	5.	2.	1.6	1.265	2.	2.	4.25	5.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	4.5	5.5	10.	2.5	7.556	2.749	2.5	2.875	8.	9.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	10 ##	0.05	0.075	0.3	0.05	0.006	0.079	0.05	0.05	0.05	0.275
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	10 ##	0.005	0.011	0.04	0.005	0.	0.011	0.005	0.005	0.013	0.038
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	10	0.24	0.26	0.5	0.09	0.02	0.14	0.093	0.135	0.368	0.495
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	10	0.4	0.37	0.7	0.1	0.031	0.177	0.11	0.2	0.5	0.68
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10 ##	0.075	0.095	0.3	0.05	0.006	0.076	0.05	0.05	0.1	0.28
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.035	0.06	0.26	0.01	0.006	0.074	0.011	0.028	0.055	0.244
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	9.	8.7	17.	3.	16.9	4.111	3.1	4.75	10.5	16.5
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	10 ##	75.	315.	1700.	50.	270027.778	519.642	50.	50.	500.	1580.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	10 ##	1.849	2.112	3.23	1.699	0.313	0.56	1.699	1.699	2.699	3.177

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	129.516							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	11	16.	15.909	31.	1.5	71.741	8.47	2.4	10.	22.5	29.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	108.	132.818	356.	70.	8257.564	90.871	70.2	72.	127.	336.
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	10	9.	8.76	11.6	6.3	2.945	1.716	6.32	6.95	10.2	11.46
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	11	2.	2.091	4.	1.	0.491	0.701	1.2	2.	2.	3.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	20.	20.545	35.	10.	42.673	6.532	10.4	19.	23.	33.
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	11	6.5	6.464	7.	5.7	0.159	0.398	5.76	6.	6.7	6.96
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	11	6.5	6.278	7.	5.7	0.196	0.443	5.76	6.	6.7	6.96
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	11	0.316	0.527	1.995	0.1	0.338	0.581	0.112	0.2	1.	1.796
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	9.	23.182	180.	2.5	2714.714	52.103	2.5	5.	11.	146.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	5.	5.727	22.	1.	33.568	5.794	1.	2.5	6.	19.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	3.	17.909	158.	0.	2169.241	46.575	0.2	1.	9.	128.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	11 ##	0.05	0.086	0.25	0.05	0.005	0.071	0.05	0.05	0.1	0.24
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	11 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	11	0.37	0.408	1.01	0.14	0.055	0.235	0.156	0.25	0.46	0.926
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	11	0.4	0.477	1.1	0.3	0.048	0.218	0.3	0.4	0.5	0.98
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11 ##	0.05	0.127	0.7	0.05	0.038	0.195	0.05	0.05	0.1	0.6
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.03	0.044	0.2	0.01	0.003	0.053	0.012	0.02	0.04	0.168
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	7.	7.364	11.	3.	4.655	2.157	3.6	6.	9.	10.6
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	11	300.	709.091	4100.	50.	1407909.091	1186.553	50.	50.	900.	3520.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	11	2.477	2.411	3.613	1.699	0.435	0.66	1.699	1.699	2.954	3.506
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	257.647							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	10	13.25	15.3	32.	1.5	108.567	10.42	1.95	6.375	25.25	31.7
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	73.5	108.8	299.	58.	5673.733	75.324	58.5	64.5	132.75	286.2
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	10	11.2	10.98	13.7	8.	3.786	1.946	8.	9.575	12.475	13.6
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	9	2.	2.056	5.	0.5	1.778	1.333	0.5	1.	2.5	5.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	10	16.5	16.6	26.	12.	18.489	4.3	12.	12.75	18.5	25.4
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	9	6.3	6.444	8.	5.5	0.598	0.773	5.5	5.75	6.9	8
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	9	6.3	6.037	8.	5.5	0.785	0.886	5.5	5.75	6.9	8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	9	0.501	0.918	3.162	0.01	1.188	1.09	0.01	0.129	1.79	3.162
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	8.5	8.15	18.	2.5	23.392	4.836	2.5	2.5	11.	17.3
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	4.	4.55	8.	2.	5.525	2.351	2.05	2.5	7.25	8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	10	3.25	4.35	10.	0.	9.281	3.046	0.2	2.375	7.	9.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	10 ##	0.05	0.05	0.05	0.05	0.	0	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	10 ##	0.005	0.011	0.06	0.005	0.	0.017	0.005	0.005	0.005	0.055
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	10	0.37	0.378	0.53	0.12	0.014	0.116	0.14	0.328	0.468	0.526
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	10	0.35	0.455	1.	0.05	0.074	0.271	0.075	0.3	0.625	0.97
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10 ##	0.05	0.09	0.2	0.05	0.004	0.061	0.05	0.05	0.125	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.02	0.035	0.12	0.005	0.001	0.034	0.006	0.018	0.045	0.114
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	7.5	7.4	10.	3.	3.822	1.955	3.3	6.75	9	9.9
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	10	200.	390.	1800.	50.	284888.889	533.75	50.	87.5	475.	1690.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	10	2.301	2.318	3.255	1.699	0.248	0.498	1.699	1.925	2.663	3.214
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	207.948							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	7	21.5	19.929	28.	11.	38.702	6.221	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	7	68.	78.	139.	45.	940.333	30.665	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	7	8.6	8.8	10.7	6.8	2.047	1.431	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	7	2.	2.5	5.	0.5	2.25	1.5	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	7	14.	18.714	40.	7.	150.571	12.271	**	**	**	**
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	7	6.36	6.544	8.6	5.4	1.065	1.032	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	7	6.36	5.983	8.6	5.4	1.432	1.197	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	7	0.437	1.039	3.981	0.003	2.126	1.458	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	7	18.	64.571	160.	10.	4318.619	65.716	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	7	7.	14.857	42.	2.	214.81	14.656	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	7	14.	49.714	118.	5.	2690.905	51.874	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	7##	0.05	0.086	0.2	0.05	0.003	0.056	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	7	0.01	0.011	0.03	0.005	0.	0.009	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	7	0.16	0.202	0.49	0.025	0.036	0.19	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	7	0.4	0.371	0.7	0.2	0.029	0.17	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	7	0.1	0.121	0.2	0.05	0.003	0.057	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	7	0.08	0.07	0.11	0.01	0.002	0.04	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	7	6.	9.714	18.	5.	32.571	5.707	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	7	500.	1742.857	8000.	50.	8328690.476	2885.947	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	7	2.699	2.632	3.903	1.699	0.748	0.865	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	428.211								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	10	18.25	16.74	26.	3.7	58.912	7.675	3.98	11.15	24.25	25.9
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	80.5	95.	156.	65.	1014.667	31.854	65.2	72.25	117.25	154.6
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	10	9.7	9.78	14.	7.5	4.18	2.044	7.51	7.9	10.975	13.78
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	10	1.	1.05	2.	0.5	0.136	0.369	0.55	1.	1.	1.9
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	10	14.5	16.	36.	6.	82.444	9.08	6.2	9.5	19.75	34.9
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	10	6.65	6.583	8.1	5.3	0.516	0.718	5.37	6.225	6.825	7.98
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	10	6.647	6.103	8.1	5.3	0.771	0.878	5.37	6.225	6.825	7.98
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	10	0.225	0.788	5.012	0.008	2.283	1.511	0.02	0.15	0.626	4.611
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	10##	4.25	8.65	25.	2.5	75.003	8.66	2.5	2.5	14.	24.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	10##	2.5	4.85	22.	0.	39.781	6.307	0.2	2.375	5.5	20.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	10##	2.75	5.05	16.	2.5	18.025	4.246	2.5	2.5	6.25	15.1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	8##	0.05	0.063	0.1	0.05	0.001	0.023	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	8##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	8	0.355	0.366	0.6	0.19	0.023	0.15	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	5	0.4	1.28	5.	0.3	4.327	2.08	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5##	0.05	0.12	0.4	0.05	0.025	0.157	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	8	0.025	0.029	0.08	0.005	0.001	0.023	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	5.5	5.9	9.	1.	6.989	2.644	1.3	4.	9.	9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	10	200.	340.	1500.	50.	182111.111	426.745	50.	87.5	400.	1390
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	10	2.301	2.316	3.176	1.699	0.199	0.446	1.699	1.925	2.602	3.119
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	206.936								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	12	13.25	16.608	29.5	4.	74.468	8.629	5.35	9.125	25.375	28.3
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	12	101.	97.5	128.	61.	570.273	23.88	64.3	74.	120.75	126.8
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	12	9.25	9.3	12.1	6.2	3.658	1.913	6.38	7.525	11.075	11.83
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	12	1.	1.25	2.	1.	0.205	0.452	1.	1.	1.75	2.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	12	15.5	16.	21.	9.	13.818	3.717	9.9	14.	20.	21.
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	12	6.95	6.82	7.18	6.09	0.109	0.329	6.153	6.703	7.05	7.153
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	12	6.95	6.677	7.18	6.09	0.131	0.362	6.153	6.702	7.05	7.153
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	12	0.112	0.21	0.813	0.066	0.05	0.223	0.071	0.089	0.198	0.719
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	12 ##	3.75	5.083	12.	2.5	9.947	3.154	2.5	2.5	7.75	10.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	12 ##	2.75	3.333	6.	2.5	1.561	1.249	2.5	2.5	4.5	5.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	12 ##	2.5	3.	6.	1.	1.864	1.365	1.3	2.5	3.75	5.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	12 ##	0.05	0.067	0.2	0.05	0.002	0.044	0.05	0.05	0.05	0.17
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	12 ##	0.008	0.009	0.03	0.005	0.	0.007	0.005	0.005	0.01	0.024
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	12	0.355	0.361	0.79	0.06	0.028	0.167	0.111	0.313	0.393	0.688
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	12	0.4	0.733	4.	0.3	1.088	1.043	0.3	0.3	0.675	3.04
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	12	0.1	0.087	0.2	0.05	0.002	0.043	0.05	0.05	0.1	0.17
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	12	0.03	0.029	0.04	0.01	0.	0.01	0.013	0.02	0.04	0.04
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	12	7.	6.833	9.	5.	1.606	1.267	5.	6.	8.	8.7
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	200.	618.182	3400.	50.	955136.364	977.311	50.	100.	800.	2920.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	2.301	2.426	3.531	1.699	0.336	0.579	1.699	2.	2.903	3.425
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	266.9								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	11	15.8	17.3	31.5	5.5	80.62	8.979	5.8	11.	26.	31.1
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	92.	99.	156.	63.	838.	28.948	64.8	73.	120.	151.2
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	10	10.8	10.77	12.8	8.6	1.853	1.361	8.67	9.675	11.9	12.74
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	11	1.	1.409	4.	0.5	0.941	0.97	0.6	1.	2.	3.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	19.	18.182	27.	9.	38.164	6.178	9.2	11.	22.	27.
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	11	7.02	7.06	7.96	6.4	0.237	0.487	6.416	6.67	7.38	7.892
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	11	7.02	6.854	7.96	6.4	0.284	0.533	6.416	6.67	7.38	7.892
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	11	0.095	0.14	0.398	0.011	0.017	0.129	0.014	0.042	0.214	0.385
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	6.	41.727	302.	2.5	7967.918	89.263	2.5	2.5	60.	254.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	2.5	30.591	282.	2.	7009.941	83.725	2.1	2.5	5.	231.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	2.5	11.955	58.	2.	327.623	18.1	2.1	2.5	20.	52.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	11 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	11 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	11	0.38	0.308	0.5	0.025	0.03	0.172	0.025	0.2	0.45	0.494
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	11	0.3	0.355	0.9	0.2	0.041	0.202	0.2	0.2	0.4	0.82
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11 ##	0.05	0.082	0.2	0.05	0.002	0.046	0.05	0.05	0.1	0.18
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.03	0.032	0.05	0.01	0.	0.013	0.012	0.02	0.04	0.05
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	6	8.	7.5	9.	5.	1.9	1.378	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	10	650.	1490.	8000.	50.	5951555.556	2439.581	50.	87.5	1875.	7470.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	10	2.801	2.654	3.903	1.699	0.592	0.77	1.699	1.925	3.261	3.856
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	450.669								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	12	20.	16.783	25.3	5.	70.402	8.391	5.45	7.275	24.95	25.21
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	8	86.5	93.625	133.	69.	528.554	22.99	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	12	10.05	10.275	13.	8.	3.9	1.975	8.03	8.5	12.375	13.
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	8	1.5	1.625	3.	1.	0.554	0.744	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	8	21.5	19.625	30.	6.	93.411	9.665	**	**	**	**
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	12	7.205	7.426	8.85	6.73	0.502	0.709	6.76	6.973	7.553	8.85
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	12	7.202	7.147	8.85	6.73	0.587	0.766	6.76	6.972	7.552	8.85
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	12	0.063	0.071	0.186	0.001	0.003	0.057	0.001	0.028	0.107	0.175
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	8	7.	13.125	52.	2.5	284.911	16.879	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	8	3.25	4.5	10.	1.	12.5	3.536	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	8	2.75	9.313	42.	0.5	201.424	14.192	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	9	0.06	0.066	0.12	0.03	0.001	0.029	0.03	0.045	0.085	0.12
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	9	0.02	0.079	0.5	0.01	0.025	0.159	0.01	0.01	0.055	0.5
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	9	0.38	0.346	0.72	0.04	0.036	0.191	0.04	0.215	0.43	0.72
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	8	0.55	0.55	0.9	0.3	0.037	0.193	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	9	0.1	0.133	0.3	0.1	0.005	0.071	0.1	0.1	0.15	0.3
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	9	0.05	0.049	0.07	0.02	0.	0.015	0.02	0.04	0.06	0.07
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	6	7.25	7.133	10.9	4.1	8.267	2.875	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	200.	745.455	2800.	50.	1032227.273	1015.986	50.	100.	1700.	2700.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	2.301	2.447	3.447	1.699	0.426	0.652	1.699	2.	3.23	3.43
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	279.746								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	11	16.8	16.364	26.7	2.2	62.215	7.888	3.6	9.5	25.	26.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	8	88.5	89.	115.	75.	157.714	12.558	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	11	10.5	10.927	14.5	8.2	4.46	2.112	8.26	9.5	12.7	14.32
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	11	2.	1.955	6.	0.5	2.873	1.695	0.5	0.5	2.	5.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	21.	21.364	35.	15.	35.455	5.954	15.	16.	25.	33.2
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	11	7.47	7.545	8.22	6.99	0.179	0.424	7.006	7.15	7.95	8.19
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	11	7.47	7.382	8.22	6.99	0.209	0.457	7.006	7.15	7.95	8.19
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	11	0.034	0.041	0.102	0.006	0.001	0.034	0.007	0.011	0.071	0.099
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	3.	32.773	326.	0.5	9470.168	97.315	0.6	1.	5.	263.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	1.	5.182	42.	0.5	150.264	12.258	0.5	0.5	3.	34.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	11	1.	27.909	284.	0.5	7227.391	85.014	0.5	0.5	3.	229.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	10##	0.02	0.027	0.06	0.02	0.	0.015	0.02	0.02	0.028	0.059
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	10##	0.008	0.009	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.019
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	10	0.4	0.467	0.86	0.32	0.026	0.161	0.322	0.363	0.553	0.83
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	10	0.45	0.46	0.8	0.3	0.02	0.143	0.3	0.375	0.5	0.77
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	0.1	0.091	0.1	0.05	0.001	0.03	0.015	0.1	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.035	0.034	0.06	0.02	0.	0.014	0.02	0.02	0.043	0.059
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	7.2	7.391	9.1	5.7	1.053	1.026	5.84	6.6	8.2	9.02
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	900.	1095.455	2900.	50.	1004227.273	1002.111	60.	100.	1700.	2820.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	11	2.954	2.745	3.462	1.699	0.398	0.631	1.759	2.	3.23	3.45
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	556.458								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1990 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	5	17.4	15.88	23.1	7.6	42.537	6.522	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	1	80.	80.	80.	0.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	5	9.9	9.64	13.4	6.	10.133	3.183	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	6	2.	2.167	3.	1.	0.567	0.753	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	6	17.	15.333	24.	3.	49.467	7.033	**	**	**	**
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	5	6.99	7.062	7.91	6.39	0.431	0.656	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	5	6.99	6.757	7.91	6.39	0.547	0.74	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	5	0.102	0.175	0.407	0.012	0.032	0.18	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	6	7.	7.917	16.	0.5	40.242	6.344	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	6	2.	2.75	7.	0.5	5.775	2.403	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	6	5.	5.25	12.	0.5	20.375	4.514	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	5	0.05	0.06	0.15	0.02	0.003	0.053	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	5##	0.005	0.007	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	5	0.45	0.474	0.66	0.4	0.011	0.106	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	5	0.5	0.48	0.8	0.1	0.067	0.259	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5	0.1	0.08	0.1	0.05	0.001	0.027	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.03	0.028	0.05	0.01	0.	0.015	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	6	7.25	6.517	9.	1.7	7.414	2.723	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	5	500.	840.	2500.	50.	1046750.	1023.108	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	5	2.699	2.507	3.398	1.699	0.606	0.778	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	321.55								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	44	25.	23.5	34.	2.4	36.412	6.034	16.9	21.2	26.65	30.25
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	27	117.	142.481	356.	68.	5916.182	76.917	74.8	89.	166.	301.6
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	44	8.	8.152	14.2	1.4	3.863	1.966	6.65	7.2	9.15	10.1
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	30	2.	2.417	9.	0.5	4.501	2.122	0.55	1.	3.25	5.9
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	28	16.5	17.571	42.	9.	53.958	7.346	10.	12.	20.	30.2
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	44	7.	7.058	9.5	6.	0.496	0.705	6.355	6.5	7.37	8.26
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	44	7.	6.72	9.5	6.	0.614	0.783	6.355	6.5	7.37	8.26
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	44	0.1	0.191	1.	0.	0.049	0.222	0.006	0.043	0.316	0.442
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	28	9.	12.714	101.	1.	345.582	18.59	2.35	5.25	11.	24.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	28	4.	4.661	19.	0.5	17.149	4.141	1.	2.5	5.	8.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	28	4.5	8.464	84.	0.	247.165	15.721	0.95	2.5	7.	17.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	41 ##	0.05	0.117	0.7	0.02	0.022	0.148	0.034	0.05	0.1	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	41	0.01	0.035	0.5	0.005	0.007	0.085	0.005	0.005	0.02	0.118
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	39	0.36	0.333	0.72	0.005	0.035	0.188	0.025	0.22	0.45	0.53
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	40	0.425	0.574	2.5	0.2	0.213	0.462	0.3	0.3	0.6	0.97
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	27	0.1	0.134	0.4	0.005	0.009	0.093	0.05	0.05	0.2	0.3
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	27	0.05	0.071	0.33	0.02	0.005	0.07	0.028	0.04	0.06	0.148
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	26	8.	8.7	19.	4.1	14.214	3.77	5.	5.75	10.225	15.6
00940	CHLORIDE, TOTAL IN WATER MG/L	06/23/77-06/20/90	1	8.	8.	8.	8.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	42	200.	727.381	4100.	50.	1055146.632	1027.203	50.	50.	1025.	2270.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	42	2.301	2.412	3.613	1.699	0.432	0.658	1.699	1.699	3.01	3.356
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	258.178								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	65	9.	9.523	34.5	0.7	35.918	5.993	1.92	5.8	12.5	16.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	45	81.	92.156	256.	45.	1424.589	37.744	55.4	68.	109.	136.
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	65	11.2	11.068	15.2	5.8	3.441	1.855	8.82	9.8	12.3	13.48
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	47	2.	1.713	6.	0.5	0.997	0.999	1.	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	48	17.	18.708	35.	6.	51.488	7.175	10.	14.	24.5	31.
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	64	6.5	6.633	8.6	5.	0.502	0.709	5.6	6.3	7.	7.575
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	64	6.5	6.073	8.6	5.	0.82	0.906	5.6	6.3	7.	7.575
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	64	0.316	0.845	10.	0.003	3.632	1.906	0.027	0.1	0.501	2.579
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	48	6.	21.813	326.	1.	3064.496	55.358	2.5	2.5	11.	52.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	48	2.5	6.052	42.	0.	68.556	8.28	1.	2.125	6.75	22.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	48	2.5	16.615	284.	0.	2307.088	48.032	1.	2.5	8.	33.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	64 ##	0.05	0.096	1.5	0.02	0.036	0.189	0.05	0.05	0.09	0.2
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	64 ##	0.005	0.013	0.37	0.005	0.002	0.046	0.005	0.005	0.005	0.015
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	60	0.37	0.374	1.01	0.005	0.031	0.177	0.172	0.285	0.448	0.548
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	64	0.3	0.48	5.	0.05	0.426	0.653	0.2	0.3	0.4	0.8
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	48 ##	0.05	0.099	0.7	0.05	0.012	0.109	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	48	0.02	0.032	0.2	0.005	0.001	0.032	0.01	0.02	0.038	0.061
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	43	8.	8.163	18.	1.	13.08	3.617	4.4	6.	9.	15.
00940	CHLORIDE, TOTAL IN WATER MG/L	06/23/77-06/20/90	8	14.5	14.5	21.	9.	17.429	4.175	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	64	100.	324.219	2900.	50.	364126.364	603.429	50.	50.	300.	800.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/02/74-06/20/90	64	2.	2.132	3.462	1.699	0.257	0.507	1.699	1.699	2.477	2.9
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	135.668								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/02/74-06/20/90	52	19.8	19.667	32.2	8.1	30.339	5.508	12.44	15.85	23.075	25.91
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	32	87.	92.813	177.	49.	862.738	29.372	61.6	72.25	111.	135.7
00300	OXYGEN, DISSOLVED MG/L	10/02/74-06/20/90	50	8.6	8.95	13.	5.6	3.219	1.794	6.21	8.	10.025	10.89
00310	BOD, 5 DAY, 20 DEG C MG/L	08/07/75-06/20/90	36	2.	1.931	5.	0.5	0.945	0.972	1.	1.	2.	3.3
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	36	17.5	17.806	40.	3.	68.047	8.249	6.7	12.25	21.75	28.8
00400	PH (STANDARD UNITS)	10/02/74-06/20/90	52	6.8	6.892	8.85	5.7	0.453	0.673	6.	6.5	7.173	7.751
00400	CONVERTED PH (STANDARD UNITS)	10/02/74-06/20/90	52	6.8	6.489	8.85	5.7	0.618	0.786	6.	6.5	7.172	7.751
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/02/74-06/20/90	52	0.158	0.324	1.995	0.001	0.253	0.503	0.018	0.068	0.316	1.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/15/79-06/20/90	36	8.5	22.931	302.	0.5	3090.974	55.597	2.5	2.625	12.75	62.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/15/79-06/20/90	36	2.75	12.153	282.	0.	2186.569	46.761	0.5	2.	5.75	8.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	08/15/79-06/20/90	36	4.	11.292	118.	0.5	497.934	22.314	0.5	2.5	8.75	30.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/02/74-06/20/90	46 ##	0.05	0.105	0.5	0.02	0.012	0.11	0.05	0.05	0.1	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	46 ##	0.005	0.012	0.06	0.005	0.	0.013	0.005	0.005	0.01	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/02/74-06/20/90	39	0.33	0.38	2.239	0.025	0.129	0.36	0.14	0.18	0.45	0.66
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/02/74-06/20/90	43	0.5	0.615	4.	0.05	0.403	0.634	0.2	0.3	0.7	1.
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	31	0.1	0.09	0.3	0.05	0.003	0.051	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	34	0.03	0.033	0.08	0.01	0.	0.016	0.01	0.02	0.04	0.055
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	36	7.55	7.778	17.	1.7	9.954	3.155	4.	6.	9.	11.6
00940	CHLORIDE, TOTAL IN WATER MG/L	06/23/77-06/20/90	9	10.	11.778	20.	9.	11.694	3.42	9.	10.	13.	20.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	47	300.	945.745	8000.	50.	2763351.064	1662.333	50.	50.	1200.	2500.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	10/02/74-06/20/90	47	2.477	2.521	3.903	1.699	0.434	0.658	1.699	1.699	3.079	3.398
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	332.001								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0037

NPS Station ID: RICH0037  
 Location: ROUNDABOUT CREEK AT WRVA RD  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: ROUNDABOUT CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.410559/ -77.322503

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-ROT001.15  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	1	6.1	6.1	6.1	6.1	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	1	67.	67.	67.	67.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.25	6.25	6.25	6.25	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.25	6.25	6.25	6.25	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/09/94-12/09/94	1	0.562	0.562	0.562	0.562	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0037

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	1	1.00				1	1	1.00		
00400	PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00		
		Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0038

NPS Station ID: RICH0038  
 Location: ROUNDABOUT CREEK, AT KINGSLAND RD  
 Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:  
 RMI-Miles:

HUC: 02080206

Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: ROUNDABOUT CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.413892/ -77.350837

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-ROT003.12  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0  
 Elevation: 0

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0038

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-06/04/97	2	11.05	11.05	15.7	6.4	43.245	6.576	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/09/94-06/04/97	2	67.	67.	80.	54.	338.	18.385	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-06/04/97	2	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/09/94-06/04/97	2	6.06	6.06	6.12	6.	0.007	0.085	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/09/94-06/04/97	2	6.056	6.056	6.12	6.	0.007	0.085	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/09/94-06/04/97	2	0.879	0.879	1.	0.759	0.029	0.171	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0038

Parameter	Std. Type	Std. Value	Total	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a	
			Obs	Exceed	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	2	0	0.00		1	0	0.00	1	0	0.00
00400	PH	Fresh Chronic	9.	2	0	0.00		1	0	0.00	1	0	0.00
		Other-Lo Lim.	6.5	2	2	1.00		1	1	1.00	1	1	1.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0039

NPS Station ID: RICH0039

Location: LEACHATE SEEP AT FORT DARLING LANDFILL

Station Type: /TYP/A/MBNT/SPRING

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF; VIRGINIA 7.5' SERIES (TOPOGRAPHIC) QUADRANGLE. STATION LCP-01 WAS AT A LEACHATE SEEP ALONG THE NORTHERN EDGE OF THE FORT DARLING SANITARY LANDFILL INSIDE OF RICHMOND NATIONAL BATTLEFIELD PARK (RICH). THE SEEP WAS SAMPLED AS PART OF A SITE INVESTIGATION OF FORT DARLING LANDFILL BY DRAPER ADEN ASSOCIATES FOR CHESTERFIELD COUNTY. SAMPLES WERE COLLECTED AT A LEACHATE SEEP AND THREE SITES ALONG AN UNNAMED CREEK AT THE NORTHERN BORDER OF THE LANDFILL. THE LEACHATE SEEP SITE WAS EXCAVATED; AND A COLLECTION DEVICE AND SAMPLING PORT WAS INSTALLED. DATA ARE FROM MISCELLANEOUS LABORATORY SHEETS AND A MEMORANDUM FROM DRAPER ADEN ASSOCIATES. FOR MORE INFORMATION CONTACT RICH'S CHIEF OF RESOURCES AT 3215 EAST BROAD STREET; RICHMOND VA 23223 (TEL. 804-226-1981). DATA WERE PROCESSED AND UPLOADED TO STORET BY RYAN SHY; NATIONAL PARK SERVICE WATER RESOURCES DIVISION; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525 (TEL. 970-225-3516).

LAT/LON: 37.420886/ -77.423667

Agency: 11NPSWRD

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): RICH\_DAA\_LCP-01

Within Park Boundary: Yes

Date Created: 07/03/99

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

### Parameter Inventory for Station: RICH0039

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00997 ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01007 BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	1	4540.	4540.	4540.	4540.	0.	0.	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	1	36.	36.	36.	36.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	1	8.	8.	8.	8.	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	1	715.	715.	715.	715.	0.	0.	**	**	**	**
01037 COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	1	282.	282.	282.	282.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	1	615.	615.	615.	615.	0.	0.	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01059 THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	1	634.	634.	634.	634.	0.	0.	**	**	**	**
01077 SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01087 VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	1	1320.	1320.	1320.	1320.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	1	3850.	3850.	3850.	3850.	0.	0.	**	**	**	**
01097 ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
01102 TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	1	28400.	28400.	28400.	28400.	0.	0.	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
32101 BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32102 CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32103 1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0039

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	50th	75th	90th
32104	BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
32106	CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34200	ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34205	ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34210	ACROLEIN TOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**	**
34215	ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	1##	100.	100.	100.	100.	0.	0.	**	**	**	**	**
34220	ANTHRACENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34292	N-BUTYL BENZYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1	6.	6.	6.	6.	0.	0.	**	**	**	**	**
34311	CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34320	CHRYSENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34336	DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34341	DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34376	FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34381	FLUORENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34396	HEXAChLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34408	ISOPHORONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34418	METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34423	METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34428	N-NITROSOdi-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34433	N-NITROSOdIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34438	N-NITROSODIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34447	NITROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34452	PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**	**
34461	PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**	**
34469	PYRENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34475	TETRAChLORoETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34488	TRICHLOROFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34501	1,1-DICHLORoETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34511	1,1,2-TRICHLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34516	1,1,2,2-TETRAChLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34546	TRANS-1,2-DICHLORoETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34556	1,2,5,6-DIBENZANThACRENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34571	1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34581	2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34586	2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34591	2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34596	Di-N-octyl PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34601	2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34606	2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34611	2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34616	2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**	**
34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34626	2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**	**
34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34646	4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34696	NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1	18.	18.	18.	18.	0.	0.	**	**	**	**	**
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0039

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
38462	FAMPHUR WATER, TOTUG/L	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	25.	25.	25.	0.	0.	**	**	**	**
39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
39100	BIS(2-ETHYLHEXYL) PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1	28.	28.	28.	0.	0.	**	**	**	**
39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	1.	1.	1.	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	25.	25.	25.	0.	0.	**	**	**	**
45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
61290	BENZENE, TOTAL WATER UG/L	05/03/96-05/03/96	1	9.	9.	9.	0.	0.	**	**	**	**
61291	TOLUENE, TOTAL WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	1##	1.	1.	1.	0.	0.	**	**	**	**
73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
73540	CARBOOTHACID,(1METHETH),S-(2,3DICL2PROP)ESTOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73559	BENZOAEANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73582	1,3-HBENZODIOXOLE, 5-(1-PROPYNYL)- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73589	1,2-ETHIDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	0.	0.	**	**	**	**
73591	BENZOÉACEANTHRYLENE, 1,2-DIHYDRO-3-METHYLTOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73619	1-NITROSOPIPERIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	0.	0.	**	**	**	**
77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	0.	0.	**	**	**	**
77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	25.	25.	25.	0.	0.	**	**	**	**
77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	7.5	7.5	7.5	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	0.	0.	**	**	**	**
77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	0.	0.	**	**	**	**
77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	10.	10.	10.	0.	0.	**	**	**	**
77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**
77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	0.	0.	**	**	**	**

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### Parameter Inventory for Station: RICH0039

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
78206	N-NITROSPYRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	20.	20.	20.	20.	0.	0.	**	**	**	**
78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	15.	15.	15.	15.	0.	0.	**	**	**	**
81888	DISULFOTIN IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82191	2-NAPHTYLAMINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**

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### EPA Water Quality Criteria Analysis for Station: RICH0039

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard		Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
				Obs	Exceed		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	1	1.00							1	1	1.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	1	1.00							1	1	1.00			
		Drinking Water	5.	1	1	1.00							1	1	1.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	1	1.00							1	1	1.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	1	1.00							1	1	1.00			
01051	LEAD, TOTAL	Drinking Water	1300.	1	0	0.00							1	0	0.00			
		Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	1	1.00							1	1	1.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	1	1.00							1	1	1.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Drinking Water	6.	1	0	0.00							1	0	0.00			
		Fresh Acute	20.	1	0	0.00							1	0	0.00			
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	50.	1	0	0.00							1	0	0.00			
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0039

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
							Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	Obs
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	1	0	0.00					1	0	0.00		
		Drinking Water	100.	1	0	0.00					1	0	0.00		
34205	ACENAPHTHENE, TOTAL	Fresh Acute	1700.	1	0	0.00					1	0	0.00		
34210	ACROLEIN, TOTAL	Fresh Acute	68.	1	0	0.00					1	0	0.00		
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00					1	0	0.00		
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00					1	0	0.00		
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00					1	0	0.00		
		Drinking Water	700.	1	0	0.00					1	0	0.00		
34376	FLUORANTHENE, TOTAL	Fresh Acute	3980.	1	0	0.00					1	0	0.00		
34386	HEXACHLOROCYCLOPENTADIENE, TOTAL	Fresh Acute	7.	1	0	0.00					1	0	0.00		
		Drinking Water	50.	1	0	0.00					1	0	0.00		
34396	HEXAChLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00					1	0	0.00		
34408	ISOPHORONE, TOTAL	Fresh Acute	117000.	1	0	0.00					1	0	0.00		
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34447	NITROBENZENE, TOTAL	Fresh Acute	27000.	1	0	0.00					1	0	0.00		
34452	PARACHLOROMETA CRESOL, TOTAL	Fresh Acute	30.	1	0	0.00					1	0	0.00		
34461	PHENANTHRENE, TOTAL	Fresh Acute	30.	1	0	0.00					1	0	0.00		
34475	TETRAChLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00					1	0	0.00		
		Drinking Water	5.	1	0	0.00					1	0	0.00		
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00					1	0	0.00		
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00					1	0	0.00		
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00					1	0	0.00		
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00					1	0	0.00		
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00					1	0	0.00		
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00					1	0	0.00		
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00					1	0	0.00		
34586	2-CHLOROPHENOL, TOTAL	Fresh Acute	4380.	1	0	0.00					1	0	0.00		
34601	2,4-DICHLOROPHENOL, TOTAL	Fresh Acute	2020.	1	0	0.00					1	0	0.00		
34606	2,4-DIMETHYLPHENOL, TOTAL	Fresh Acute	2120.	1	0	0.00					1	0	0.00		
34611	2,4-DINITROTOLUENE, TOTAL	Fresh Acute	330.	1	0	0.00					1	0	0.00		
34694	PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	Fresh Acute	10200.	1	0	0.00					1	0	0.00		
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00					1	0	0.00		
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	0 &	0	0.00									
		Drinking Water	1.	0 &	0	0.00									
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	Fresh Acute	2000.	1	0	0.00					1	0	0.00		
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	6.	1	1	1.00					1	1	1.00		
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00					1	0	0.00		
39702	HEXAChLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	45000.	1	0	0.00					1	0	0.00		
71900	MERCURY, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Fresh Acute	90.	1	0	0.00					1	0	0.00		
77128	STYRENE, WHOLE WATER	Drinking Water	2.4	1	0	0.00					1	0	0.00		
77687	2,4,5-TRICHLOROPHENOL, WHOLE WATER	Drinking Water	70.	1	0	0.00					1	0	0.00		
		Fresh Acute	100.	1	0	0.00					1	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0040

NPS Station ID: RICH0040  
 Location: WESTERN RUN, RT. 156 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: WESTERN RUN SECTION: 07 TOPO MAP #: 0141 TOPO MAP NAME: ROXBURY, VA

LAT/LON: 37.419448/ -77.245281

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-WSN000.85  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0040

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	1	84.	84.	84.	84.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.23	6.23	6.23	6.23	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.23	6.23	6.23	6.23	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/09/94-12/09/94	1	0.589	0.589	0.589	0.589	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0040

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00		
00400	PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00		
		Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0041

NPS Station ID: RICH0041

LAT/LON: 37.421337/ -77.423837

Location: UNNAMED STREAM UPSTREAM OF LEACHATE SEEPS

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Depth of Water: 0

Major Basin: NORTH ATLANTIC

Elevation: 0

Minor Basin: JAMES RIVER

RF1 Mile Point: 0.000

RF1 Index: 02080206

RF3 Mile Point: 1.58

RF3 Index: 02080206000501.22

Description:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF; VIRGINIA 7.5' SERIES (TOPOGRAPHIC) QUADRANGLE. STATION SS-01 WAS AT AN UNNAMED STREAM NORTH OF FORT DARLING SANITARY LANDFILL UPSTREAM OF LEACHATE SEEPS. THE SITE IS INSIDE OF RICHMOND NATIONAL BATTLEFIELD PARK (RICH). THE STREAM WAS SAMPLED AS PART OF A SITE INVESTIGATION OF FORT DARLING LANDFILL BY DRAPER ADEN ASSOCIATES FOR CHESTERFIELD COUNTY. SAMPLES WERE COLLECTED AT A LEACHATE SEEP AND THREE SITES ALONG AN UNNAMED CREEK AT THE NORTHERN BORDER OF THE LANDFILL. THE STREAM AT STATION SS-01 WAS CLEAR; AND THE SUBSTRATE WAS BROWN IN COLOR. DATA ARE FROM MISCELLANEOUS LABORATORY SHEETS AND A MEMORANDUM FROM DRAPER ADEN ASSOCIATES. FOR MORE INFORMATION CONTACT RICH'S CHIEF OF RESOURCES AT 3215 EAST BROAD STREET; RICHMOND VA 23223 (TEL. 804-226-1981). DATA WERE PROCESSED AND UPLOADED TO STORET BY RYAN SHY; NATIONAL PARK SERVICE WATER RESOURCES DIVISION; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525 (TEL. 970-225-3516).

Date Created: 07/03/99

Agency: 11NPSWRD

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): RICH\_DAA\_SS-01

Within Park Boundary: Yes

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

## Parameter Inventory for Station: RICH0041

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00997 ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01007 BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	1	51.	51.	51.	51.	0.	0.	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01037 COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	1	28.	28.	28.	28.	0.	0.	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01059 THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01077 SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01087 VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	1	52.	52.	52.	52.	0.	0.	**	**	**	**
01097 ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
01102 TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	1 ##	5000.	5000.	5000.	5000.	0.	0.	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
32101 BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32102 CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32103 1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0041

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	50th	75th	90th
32104	BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
32106	CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34200	ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34205	ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34210	ACROLEIN TOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**	**
34215	ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	1##	100.	100.	100.	100.	0.	0.	**	**	**	**	**
34220	ANTHRACENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34292	N-BUTYL BENZYL PHthalate,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34311	CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34320	CHRYSENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34336	DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34341	DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34376	FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34381	FLUORENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34396	HEXAChLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34408	ISOPHORONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34418	METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34423	METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34428	N-NITROSOdi-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34433	N-NITROSOdIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34438	N-NITROSODIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34447	NITROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34452	PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**	**
34461	PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**	**
34469	PYRENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34475	TETRAChLORoETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34488	TRICHLOROFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34501	1,1-DICHLORoETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34511	1,1,2-TRICHLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34516	1,1,2,2-TETRAChLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34546	TRANS-1,2-DICHLORoETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34556	1,2,5,6-DIBENZANTHACRENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34571	1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34581	2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34586	2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34591	2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34596	Di-N-OCTYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34601	2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34606	2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34611	2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34616	2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**	**
34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34626	2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**	**
34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34646	4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**
34696	NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**	**
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0041

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
38462	FAMPHUR WATER, TOTUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39100	BIS(2-ETHYLHEXYL) PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	3.	3.	3.	3.	0.	0.	**	**	**	**
39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	1.	1.	1.	1.	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
61290	BENZENE, TOTAL WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
61291	TOLUENE, TOTAL WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	1##	1.	1.	1.	1.	0.	0.	**	**	**	**
73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73540	CARBMO THACID,(1METHETH),S-(2,3DIDL2PROP)ESTOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73559	BENZOAEANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73582	1,3-HBENZODIOXOLE, 5-(1-PROPYNYL)- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73589	1,2-ETHIDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
73591	BENZOÉACEANTHRYLENE, 1,2-DIHYDRO-3-METHYLTTOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73619	1-NITROSOPIPERIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	75.	0.	0.	**	**	**	**
77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	75.	0.	0.	**	**	**	**
77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0041

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
78206	N-NITROSPYRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	20.	20.	20.	20.	0.	0.	**	**	**	**
78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	15.	15.	15.	15.	0.	0.	**	**	**	**
81888	DISULFOTIN IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82191	2-NAPHTHYLAMINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0041

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard		Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
				Obs	Exceed		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	1	1.00							1	1	1.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0&	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0041

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
							Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	Obs
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	1	0	0.00					1	0	0.00		
		Drinking Water	100.	1	0	0.00					1	0	0.00		
34205	ACENAPHTHENE, TOTAL	Fresh Acute	1700.	1	0	0.00					1	0	0.00		
34210	ACROLEIN, TOTAL	Fresh Acute	68.	1	0	0.00					1	0	0.00		
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00					1	0	0.00		
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00					1	0	0.00		
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00					1	0	0.00		
		Drinking Water	700.	1	0	0.00					1	0	0.00		
34376	FLUORANTHENE, TOTAL	Fresh Acute	3980.	1	0	0.00					1	0	0.00		
34386	HEXACHLOROCYCLOPENTADIENE, TOTAL	Fresh Acute	7.	1	0	0.00					1	0	0.00		
		Drinking Water	50.	1	0	0.00					1	0	0.00		
34396	HEXAChLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00					1	0	0.00		
34408	ISOPHORONE, TOTAL	Fresh Acute	117000.	1	0	0.00					1	0	0.00		
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34447	NITROBENZENE, TOTAL	Fresh Acute	27000.	1	0	0.00					1	0	0.00		
34452	PARACHLOROMETA CRESOL, TOTAL	Fresh Acute	30.	1	0	0.00					1	0	0.00		
34461	PHENANTHRENE, TOTAL	Fresh Acute	30.	1	0	0.00					1	0	0.00		
34475	TETRAChLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00					1	0	0.00		
		Drinking Water	5.	1	0	0.00					1	0	0.00		
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00					1	0	0.00		
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00					1	0	0.00		
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00					1	0	0.00		
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00					1	0	0.00		
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00					1	0	0.00		
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00					1	0	0.00		
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00					1	0	0.00		
34586	2-CHLOROPHENOL, TOTAL	Fresh Acute	4380.	1	0	0.00					1	0	0.00		
34601	2,4-DICHLOROPHENOL, TOTAL	Fresh Acute	2020.	1	0	0.00					1	0	0.00		
34606	2,4-DIMETHYLPHENOL, TOTAL	Fresh Acute	2120.	1	0	0.00					1	0	0.00		
34611	2,4-DINITROTOLUENE, TOTAL	Fresh Acute	330.	1	0	0.00					1	0	0.00		
34694	PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	Fresh Acute	10200.	1	0	0.00					1	0	0.00		
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00					1	0	0.00		
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	0 &	0	0.00									
		Drinking Water	1.	0 &	0	0.00									
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	Fresh Acute	2000.	1	0	0.00					1	0	0.00		
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	6.	1	0	0.00					1	0	0.00		
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	1	0	0.00					1	0	0.00		
		Drinking Water	5.	1	0	0.00					1	0	0.00		
39702	HEXAChLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	1	0	0.00					1	0	0.00		
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00					1	0	0.00		
		Drinking Water	2.	1	0	0.00					1	0	0.00		
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	1	0	0.00					1	0	0.00		
77128	STYRENE, WHOLE WATER	Drinking Water	100.	1	0	0.00					1	0	0.00		
77687	2,4,5-TRICHLOROPHENOL, WHOLE WATER	Fresh Acute	100.	1	0	0.00					1	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0042

NPS Station ID: RICH0042	LAT/LON: 37.420615/ -77.423115	Agency: 11NPSWRD	Date Created: 07/03/99
Location: UNNAMED STREAM DOWNSTREAM OF LARGEST SEEP		FIPS State/County: 51041 VIRGINIA/CHESTERFIELD	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): RICH_DAA_SS-02	
RMI-Indexes:		Within Park Boundary: Yes	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: JAMES RIVER		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:			
THE STATION IS LOCATED ON THE DREWRY'S BLUFF; VIRGINIA 7.5' SERIES (TOPOGRAPHIC) QUADRANGLE. STATION SS-02 WAS AT AN UNNAMED STREAM NORTH OF FORT DARLING SANITARY LANDFILL DOWNSTREAM OF THE LARGEST SEEP. THE SITE IS INSIDE OF RICHMOND NATIONAL BATTLEFIELD PARK (RICH). THE STREAM WAS SAMPLED AS PART SITE OF A INVESTIGATION OF FORT DARLING LANDFILL BY DRAPER ADEN ASSOCIATES FOR CHESTERFIELD COUNTY. SAMPLES WERE COLLECTED AT A LEACHATE SEEP AND THREE SITES ALONG AN UNNAMED CREEK AT THE NORTHERN BORDER OF THE LANDFILL. THE STREAM AT STATION SS-02 WAS ORANGE IN COLOR AND ODOROUS. DATA ARE FROM MISCELLANEOUS LABORATORY SHEETS AND A MEMORANDUM FROM DRAPER ADEN ASSOCIATES. FOR MORE INFORMATION CONTACT RICH'S CHIEF OF RESOURCES AT 3215 EAST BROAD STREET; RICHMOND VA 23223 (TEL. 804-226-1981). DATA WERE PROCESSED AND UPLOADED TO STORET BY RYAN SHY; NATIONAL PARK SERVICE WATER RESOURCES DIVISION; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525 (TEL. 970-225-3516).			

### Parameter Inventory for Station: RICH0042

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00997 ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	1 ##	5.	5.	5.	0.	0.	0.	**	**	**	**
01007 BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	1	180.	180.	180.	0.	0.	0.	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	1 ##	1.	1.	1.	0.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	1 ##	0.5	0.5	0.5	0.	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01037 COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	1	15.	15.	15.	15.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	1	12.	12.	12.	12.	0.	0.	**	**	**	**
01059 THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01077 SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01087 VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01097 ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
01102 TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	1 ##	5000.	5000.	5000.	5000.	0.	0.	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
32101 BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32102 CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32103 1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32104 BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32105 DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32106 CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0042

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34200 ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34205 ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34210 ACRYOLEIN TOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
34215 ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	1##	100.	100.	100.	100.	0.	0.	**	**	**	**
34220 ANTHRACENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34273 BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34292 N-BUTYL BENZYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34301 CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34311 CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34320 CHRYSENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34336 DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34341 DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34371 ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34376 FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34381 FLUORENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34386 HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34396 HEXACHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34408 ISOPHORONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34413 METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34418 METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34423 METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34428 N-NITROSO-DI-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34433 N-NITROSODIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34438 N-NITROSODIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34447 NITROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34452 PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
34461 PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
34469 PYRENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34475 TETRACHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34488 TRICHLOROFUROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34496 1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34501 1,1-DICHLOROETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34506 1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34511 1,1,2-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34516 1,1,2,2-TETRACHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34536 1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34541 1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34546 TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34551 1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34556 1,2,5,6-DIBENZANTHRACENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34566 1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34571 1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34581 2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34586 2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34591 2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34596 DI-N-OCTYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34601 2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34606 2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34611 2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34616 2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
34621 2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34626 2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34631 3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
34636 4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34641 4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34646 4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
34668 DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34694 PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34696 NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34699 TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34704 CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
38462 FAMPUR WATER, TOTUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0042

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39100	BIS(2-ETHYLHEXYL) PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1	8.	8.	8.	8.	0.	0.	**	**	**	**
39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	1.	1.	1.	1.	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
61290	BENZENE, TOTAL WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
61291	TOLUENE, TOTAL WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	1##	1.	1.	1.	1.	0.	0.	**	**	**	**
73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73540	CARBMOETHACID,(IMETHETH),S-(2,3DICL2PROP)ESTOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73559	BENZOAECANTHRAcene, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73576	1-PROPENE, 1,1,2,3,3,3-HEXAChLORO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73582	1,3-HBENZODIOXOLE, 5-(1-PROPYNYL)- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73589	1,2-ETHDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMHTTOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
73591	BENZOJÀEACANTHRYLENE, 1,2-DIHYDRO-3-METHYL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73619	1-NITROSOPIPERIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77007	PROPANENITRILE(PROPIONITRILE,ETHY*)WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	75.	0.	0.	**	**	**	**
77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	75.	0.	0.	**	**	**	**
77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0042

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
78206	N-NITROSO PYRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	20.	20.	20.	20.	0.	0.	**	**	**	**
78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	15.	15.	15.	15.	0.	0.	**	**	**	**
81888	DISULFOTON IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82191	2-NAPHTHYLAMINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**

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### EPA Water Quality Criteria Analysis for Station: RICH0042

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00				1	0	0.00		
		Drinking Water	50.	1	0	0.00				1	0	0.00		
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00				1	0	0.00		
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00				1	0	0.00		
		Drinking Water	4.	1	0	0.00				1	0	0.00		
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00				1	0	0.00		
		Drinking Water	5.	1	0	0.00				1	0	0.00		
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00		
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00				1	0	0.00		
		Drinking Water	1300.	1	0	0.00				1	0	0.00		
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00				1	0	0.00		
		Drinking Water	15.	1	0	0.00				1	0	0.00		
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00				1	0	0.00		
		Drinking Water	2.	1	0	0.00				1	0	0.00		
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00				1	0	0.00		
		Drinking Water	100.	1	0	0.00				1	0	0.00		
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00				1	0	0.00		
		Drinking Water	100.	1	0	0.00				1	0	0.00		
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00				1	0	0.00		
		Drinking Water	5000.	1	0	0.00				1	0	0.00		
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00				1	0	0.00		
		Drinking Water	6.	1	0	0.00				1	0	0.00		
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00				1	0	0.00		
		Drinking Water	50.	1	0	0.00				1	0	0.00		
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00		
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00				1	0	0.00		
		Drinking Water	5.	1	0	0.00				1	0	0.00		
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00				1	0	0.00		
		Drinking Water	5.	1	0	0.00				1	0	0.00		
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00		
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00		
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	1	0	0.00				1	0	0.00		
		Drinking Water	100.	1	0	0.00				1	0	0.00		
34205	ACENAPHTHENE, TOTAL	Fresh Acute	1700.	1	0	0.00				1	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0042

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
34210 ACRYLIC ACID, TOTAL	Fresh Acute	68.	1	0	0.00				1	0	0.00			
34215 ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00				1	0	0.00			
34301 CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00			
34371 ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00				1	0	0.00			
	Drinking Water	700.	1	0	0.00				1	0	0.00			
34376 FLUORANTHENE, TOTAL	Fresh Acute	3980.	1	0	0.00				1	0	0.00			
34386 HEXACHLOROCYCLOPENTADIENE, TOTAL	Fresh Acute	7.	1	0	0.00				1	0	0.00			
	Drinking Water	50.	1	0	0.00				1	0	0.00			
34396 HEXACHLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00				1	0	0.00			
34408 ISOPHORONE, TOTAL	Fresh Acute	117000.	1	0	0.00				1	0	0.00			
34423 METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00			
34447 NITROBENZENE, TOTAL	Fresh Acute	27000.	1	0	0.00				1	0	0.00			
34452 PARACHLOROMETA CRESOL, TOTAL	Fresh Acute	30.	1	0	0.00				1	0	0.00			
34461 PHENANTHRENE, TOTAL	Fresh Acute	30.	1	0	0.00				1	0	0.00			
34475 TETRACHLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00				1	0	0.00			
	Drinking Water	5.	1	0	0.00				1	0	0.00			
34501 1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00				1	0	0.00			
34506 1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00				1	0	0.00			
34511 1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00			
34536 1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00			
34541 1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00			
34546 TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00				1	0	0.00			
34551 1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00				1	0	0.00			
34566 1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00			
34571 1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00				1	0	0.00			
34586 2-CHLOROPHENOL, TOTAL	Fresh Acute	4380.	1	0	0.00				1	0	0.00			
34601 2,4-DICHLOROPHENOL, TOTAL	Fresh Acute	2020.	1	0	0.00				1	0	0.00			
34606 2,4-DIMETHYLPHENOL, TOTAL	Fresh Acute	2120.	1	0	0.00				1	0	0.00			
34611 2,4-DINITROTOLUENE, TOTAL	Fresh Acute	330.	1	0	0.00				1	0	0.00			
34694 PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	Fresh Acute	10200.	1	0	0.00				1	0	0.00			
34696 NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00				1	0	0.00			
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	0 &	0	0.00									
	Drinking Water	1.	0 &	0	0.00									
39100 BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	Fresh Acute	2000.	1	0	0.00				1	0	0.00			
	Drinking Water	6.	1	1	1.00				1	1	1.00			
39175 VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00				1	0	0.00			
39180 TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	1	0	0.00				1	0	0.00			
39702 HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Drinking Water	5.	1	0	0.00				1	0	0.00			
71900 MERCURY, TOTAL	Fresh Acute	90.	1	0	0.00				1	0	0.00			
	Drinking Water	2.	1	0	0.00				1	0	0.00			
77093 CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	1	0	0.00				1	0	0.00			
77128 STYRENE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00			
77687 2,4,5-TRICHLOROPHENOL, WHOLE WATER	Fresh Acute	100.	1	0	0.00				1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0043

NPS Station ID: RICH0043  
 Location: UNNAMED TRIBUTARY OF JAMES RIVER  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:

LAT/LON: 37.420366/ -77.421893

Agency: 11NPSWRD  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): RICH\_NPS\_3  
 Within Park Boundary: Yes

Date Created: 07/17/99

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF VA 7.5 MINUTE SERIES PARK (RICH) BOUNDARIES. THE SITE IS AT AN UNNAMED TRIBUTARY OF JAMES RIVER NEAR DREWRY'S BLUFF. DATA WERE COLLECTED ON 2 SEPTEMBER 1997 AS PART OF A BASELINE MONITORING PROJECT TO ASSESS THE IMPACT OF A NEARBY COUNTY LANDFILL (ACQUIRED BY RICH DURING THE 1970'S) ON THE TRIBUTARY. THE TRIBUTARY'S SOURCE COLLECTS RUNOFF FROM AN AREA NORTHEAST OF THE PARK THAT INCLUDES ASPHALT STORAGE CONTAINERS. DATA ARE FROM AN ANALYTICAL REPORT TITLED "DREWRY'S BLUFF PROJECT." ANALYTICAL REPORT NO. 7C480-A; BY TEXAS A&M UNIVERSITY'S GEOCHEMICAL AND ENVIRONMENTAL RESEARCH GROUP. FOR MORE INFORMATION CONTACT THE CHIEF OF RESOURCES AT RICH; 3215 EAST BROAD STREET; RICHMOND VA 23223; TEL(804)226-1981. DATA WERE PROCESSED AND UPLOADED TO STORET BY SHAWNDRAY MAWHORTER; NPS-WRD; 1201 OAKRIDGE DRIVE SUITE 250; FORT COLLINS CO 80528; TEL(970)225-3516.

## Parameter Inventory for Station: RICH0043

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	1	1046.5	1046.5	1046.5	1046.5	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	1	3.28	3.28	3.28	3.28	0.	0.	**	**	**	**
01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	1	124.19	124.19	124.19	124.19	0.	0.	**	**	**	**
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	1	25780.6	25780.6	25780.6	25780.6	0.	0.	**	**	**	**
01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	1##	3.35	3.35	3.35	3.35	0.	0.	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	0.43	0.43	0.43	0.43	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	13.11	13.11	13.11	13.11	0.	0.	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	1	12.88	12.88	12.88	12.88	0.	0.	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	1	15.77	15.77	15.77	15.77	0.	0.	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	1	138.98	138.98	138.98	138.98	0.	0.	**	**	**	**
01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	1##	0.53	0.53	0.53	0.53	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	12.15	12.15	12.15	12.15	0.	0.	**	**	**	**
01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	1	29.97	29.97	29.97	29.97	0.	0.	**	**	**	**
01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	1	24.08	24.08	24.08	24.08	0.	0.	**	**	**	**
01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	1	7776.8	7776.8	7776.8	7776.8	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	1##	0.105	0.105	0.105	0.105	0.	0.	**	**	**	**
01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	1	75.49	75.49	75.49	75.49	0.	0.	**	**	**	**
34203	ACENAPHTHYLENE DRY WGTBOTUG/KG	09/02/97-09/02/97	1	7.	7.	7.	7.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0043

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	133.4	133.4	133.4	133.4	0.	0.	**	**	**	**
34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	759.4	759.4	759.4	759.4	0.	0.	**	**	**	**
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	2261.6	2261.6	2261.6	2261.6	0.	0.	**	**	**	**
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	1	22.5	22.5	22.5	22.5	0.	0.	**	**	**	**
34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	1547.5	1547.5	1547.5	1547.5	0.	0.	**	**	**	**
34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
34262	DELTA BENZENE HEXACHLORIDE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
34323	CHRYSENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	1082.3	1082.3	1082.3	1082.3	0.	0.	**	**	**	**
34359	ENDOSULFAN, BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
34379	FLUORANTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2837.1	2837.1	2837.1	2837.1	0.	0.	**	**	**	**
34384	FLUORENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	134.3	134.3	134.3	134.3	0.	0.	**	**	**	**
34406	INDENO (1,2,3-CD) PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	957.8	957.8	957.8	957.8	0.	0.	**	**	**	**
34445	NAPHTHALENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	46.	46.	46.	46.	0.	0.	**	**	**	**
34464	PHENANTHRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2998.9	2998.9	2998.9	2998.9	0.	0.	**	**	**	**
34472	PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2343.2	2343.2	2343.2	2343.2	0.	0.	**	**	**	**
34524	BENZO(GH)PERYLENE,1,2-BENZOPERYLENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	777.1	777.1	777.1	777.1	0.	0.	**	**	**	**
34529	BENZO(A)ANTHRACENE,1,2-BENZANTHRACENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2211.5	2211.5	2211.5	2211.5	0.	0.	**	**	**	**
39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	1	0.19	0.19	0.19	0.19	0.	0.	**	**	**	**
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
45095	C2 ALKYL DIBENZOTHOIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	1	91.9	91.9	91.9	91.9	0.	0.	**	**	**	**
49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	155.6	155.6	155.6	155.6	0.	0.	**	**	**	**
49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	924.9	924.9	924.9	924.9	0.	0.	**	**	**	**
49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	31.8	31.8	31.8	31.8	0.	0.	**	**	**	**
49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	50.	50.	50.	50.	0.	0.	**	**	**	**
49761	C3 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	103.8	103.8	103.8	103.8	0.	0.	**	**	**	**
49767	C1 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	74.	74.	74.	74.	0.	0.	**	**	**	**
49769	C3 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	44.5	44.5	44.5	44.5	0.	0.	**	**	**	**
49782	NAPHTHALENE, C1 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	54.9	54.9	54.9	54.9	0.	0.	**	**	**	**
49783	NAPHTHALENE, C2 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	42.9	42.9	42.9	42.9	0.	0.	**	**	**	**
49784	NAPHTHALENE, C3 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	56.2	56.2	56.2	56.2	0.	0.	**	**	**	**
49785	NAPHTHALENE, C4 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	29.	29.	29.	29.	0.	0.	**	**	**	**
49805	C1 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	1150.2	1150.2	1150.2	1150.2	0.	0.	**	**	**	**
49806	C2 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	458.6	458.6	458.6	458.6	0.	0.	**	**	**	**
49807	C3 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	17.5	17.5	17.5	17.5	0.	0.	**	**	**	**
49808	C4 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	31.2	31.2	31.2	31.2	0.	0.	**	**	**	**
50590	PCB CONGENER IUPAC#107, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.49	0.49	0.49	0.49	0.	0.	**	**	**	**
50595	PCB CONGENER IUPAC#25, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
50596	PCB CONGENER IUPAC#29, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50601	PCB CONGENER IUPAC#53, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50602	PCB CONGENER IUPAC#63, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50603	PCB CONGENER IUPAC#81, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.88	1.88	1.88	1.88	0.	0.	**	**	**	**
50604	PCB CONGENER IUPAC#84, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50605	PCB CONGENER IUPAC#1, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50607	PCB CONGENER IUPAC#205, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50609	PCB CONGENER IUPAC#193, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50610	PCB CONGENER IUPAC#191, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50611	PCB CONGENER IUPAC#189, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50612	PCB CONGENER IUPAC#175, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.92	1.92	1.92	1.92	0.	0.	**	**	**	**
50614	PCB CONGENER IUPAC#130, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50615	PCB CONGENER IUPAC#119, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
50784	ALPHA-CHLORDANE SEDIMENT,DRY WT,BOTTOM DEP UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0043

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50910	DIBENZO(A,H)ANTHRACENE SED DRY WEIGHT BOTTOM UG/KG	09/02/97-09/02/97	1	328.3	328.3	328.3	328.3	0.	0.	**	**	**	**
50942	1-METHYLPHENANTHRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	171.7	171.7	171.7	171.7	0.	0.	**	**	**	**
50943	2,6-DIMETHYLNAPHTHALENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	11.8	11.8	11.8	11.8	0.	0.	**	**	**	**
50947	PCB CONGENER #28 (CL3), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	0.77	0.77	0.77	0.77	0.	0.	**	**	**	**
50948	PCB CONGENER #52 (CL4), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	1.18	1.18	1.18	1.18	0.	0.	**	**	**	**
50949	PCB CONGENER #44 (CL4), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	0.73	0.73	0.73	0.73	0.	0.	**	**	**	**
50950	PCB CONGENER #66 (CL4), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50951	PCB CONGENER #77/110 (CL4/CL5) DRY WGT, SED UG/KG	09/02/97-09/02/97	1	3.8	3.8	3.8	3.8	0.	0.	**	**	**	**
50953	PCB CONGENER #118 (CL5), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50955	PCB CONGENER #105 (CL5), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50958	PCB CONGENER #187 (CL7), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	0.46	0.46	0.46	0.46	0.	0.	**	**	**	**
50959	PCB CONGENER #128 (CL6), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50960	PCB CONGENER #180 (CL7), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	0.83	0.83	0.83	0.83	0.	0.	**	**	**	**
50963	PCB CONGENER #206 (CL9), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
50964	PCB CONGENER #209 (CL10), DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50966	GAMMA-CHLORDANE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	0.53	0.53	0.53	0.53	0.	0.	**	**	**	**
61080	1,6,7-TRIMETHYLNAPHTHALENE SEDIMENT DRY WT UG/KG	09/02/97-09/02/97	1	2.	2.	2.	2.	0.	0.	**	**	**	**
61098	C4-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	588.4	588.4	588.4	588.4	0.	0.	**	**	**	**
61100	C3-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	171.7	171.7	171.7	171.7	0.	0.	**	**	**	**
61101	C2-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	413.8	413.8	413.8	413.8	0.	0.	**	**	**	**
61104	C1-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	647.6	647.6	647.6	647.6	0.	0.	**	**	**	**
61105	C1-FLUORANTHENES+PYRENES SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	885.8	885.8	885.8	885.8	0.	0.	**	**	**	**
61115	PCB CONGENER #169 (C16) SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61160	PCB CONGENER #126 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61161	PCB CONGENER # 77 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61197	TRICHLOROBIPHENYL,2,3',5,-(PCB#26)DRY WT BOT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61239	PAHS WITHOUT PERYLENE,TOTAL,SEDIMENT,DRY WT UG/KG	09/02/97-09/02/97	1	24451.	24451.	24451.	24451.	0.	0.	**	**	**	**
61261	PCB CONGENER #8/5, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61262	PCB CONGENER #195/208, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
61263	PCB CONGENER #18/17, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	2.98	2.98	2.98	2.98	0.	0.	**	**	**	**
61264	PCB CONGENER #170/190, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61265	PCB CONGENER #153/132, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.38	1.38	1.38	1.38	0.	0.	**	**	**	**
61266	PCB CONGENER #138/160, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.15	1.15	1.15	1.15	0.	0.	**	**	**	**
61268	PCB CONGENER #101/90, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61285	1-METHYLNAPHTHALENE, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	30.1	30.1	30.1	30.1	0.	0.	**	**	**	**
61783	PCB CONGERNER #80/95 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	2.35	2.35	2.35	2.35	0.	0.	**	**	**	**
61784	PCB CONGERNER #61/74 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61785	PCB CONGERNER #41/64 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61786	PCB CONGERNER #37/42/59 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.94	0.94	0.94	0.94	0.	0.	**	**	**	**
61794	POLYAMMATIC HYDROCARBON TOT W/ PERYLON SED DRYUG/KG	09/02/97-09/02/97	1	24607.	24607.	24607.	24607.	0.	0.	**	**	**	**
61795	PCB CONGERNER #196/203 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61796	PCB CONGERNER #153/173/201 SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	1.28	1.28	1.28	1.28	0.	0.	**	**	**	**
61798	PCB CONGERNER #176/173 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61799	PCB CONGERNER #141/179 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61800	PCB CONGERNER #123/149 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61801	PCB CONGERNER #87/115 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61802	PCB CONGERNER #56/60 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61803	PCB CONGERNER #55/91 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61804	PCB CONGERNER #16/32 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61805	PCB CONGERNER #24/27 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61806	PCB CONGERNER #7/9 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61808	PCB CONGERNER #199 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61809	PCB CONGERNER #200 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.55	0.55	0.55	0.55	0.	0.	**	**	**	**
61810	PCB CONGERNER #197 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61811	PCB CONGERNER #172 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61812	PCB CONGERNER #156 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61813	PCB CONGERNER #177 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61814	PCB CONGERNER #174 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61815	PCB CONGERNER #185 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61816	PCB CONGERNER #167 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61817	PCB CONGERNER #183 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61818	PCB CONGERNER #166 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
61820	PCB CONGERNER #129 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	2.02	2.02	2.02	2.02	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0043

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
61821	PCB CONGERNER #158 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61822	PCB CONGERNER #146 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.58	0.58	0.58	0.58	0.	0.	**	**	**	**
61823	PCB CONGERNER #114 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61824	PCB CONGERNER #135 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
61825	PCB CONGERNER #151 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.32	0.32	0.32	0.32	0.	0.	**	**	**	**
61826	PCB CONGERNER #82 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	1.09	1.09	1.09	1.09	0.	0.	**	**	**	**
61827	PCB CONGERNER #136 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61828	PCB CONGERNER #85 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.22	0.22	0.22	0.22	0.	0.	**	**	**	**
61829	PCB CONGERNER #97 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
61831	PCB CONGERNER #99 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.73	0.73	0.73	0.73	0.	0.	**	**	**	**
61832	PCB CONGERNER #92 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.54	0.54	0.54	0.54	0.	0.	**	**	**	**
61833	PCB CONGERNER #70 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	1.04	1.04	1.04	1.04	0.	0.	**	**	**	**
61834	PCB CONGERNER #67 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61835	PCB CONGERNER #40 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61836	PCB CONGERNER #72 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61837	PCB CONGERNER #48 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61838	PCB CONGERNER #49 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.77	0.77	0.77	0.77	0.	0.	**	**	**	**
61839	PCB CONGERNER #69 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61846	4,4'DDD/PCB CONGENERIC 114 SED. DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
75042	HEXAACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	1	5.9	5.9	5.9	5.9	0.	0.	**	**	**	**
75714	DIBENZO(BD)THIOPHENE(DIPHEN*SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	1	129.1	129.1	129.1	129.1	0.	0.	**	**	**	**
78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	1	1.17	1.17	1.17	1.17	0.	0.	**	**	**	**
78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	24.8	24.8	24.8	24.8	0.	0.	**	**	**	**
79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.82	0.82	0.82	0.82	0.	0.	**	**	**	**
81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	1	64.2	64.2	64.2	64.2	0.	0.	**	**	**	**

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\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0044

NPS Station ID: RICH0044

Location: LANDFILL ASSESSMENT FOR RICH STATION FD-04

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE SITE IS LOCATED ON THE DREWRY'S BLUFF VIRGINIA-CHESTERFIELD CO. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS INSIDE THE FORT DARLING UNIT OF THE RICHMOND NATIONAL BATTLEFIELD PARK. THE SITE IS LOCATED 121 METERS BELOW THE VISITOR FOOT BRIDGE AND BELOW THE GREATEST VOLUME OF THE LEACHATE STAIN. THE STUDY MEASURED POSSIBLE CONTAMINATION OF AN UNNAMED TRIBUTARY TO THE JAMES RIVER. THE LEACHATE WAS PRESUMED TO BE FROM A LANDFILL ADJACENT TO THE PARK. THE LANDFILL CLOSED IN 1972 AND WAS COVERED WITH TOPSOIL; CONTOURED AND REVEGETATED. AT THE TIME OF THE STUDY THERE WAS VISIBLE SUBSIDENCE IN THE LANDFILL'S EARTHEN CAP AND AN ORANGE-REDDISH LEACHATE STAIN IN THE CHANNEL. THE DATA IS FROM A STUDY BY DEL NIMMO ET AL. "ASSESSMENT OF AN URBAN LANDFILL ON TRIBUTARY WATER QUALITY." FOR MORE INFORMATION CONTACT MIKE BRENNAN RESOURCES MANAGEMENT SPECIALIST RICHMOND NATIONAL BATTLEFIELD PARK. PH.804-795-5019. DATA PROCESSED AND UPLOADED TO STORET BY CURTIS COOPER NPS-WRD FT COLLINS CO 80525. PH.970-225-3516.

LAT/LON: 37.420615/ -77.423115

Agency: 11NPSWRD

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): RICH\_FD\_04

Within Park Boundary: Yes

Date Created: 07/12/97

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

## Parameter Inventory for Station: RICH0044

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	1	20.	20.	20.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	1	4000.	4000.	4000.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	1	2.8	2.8	2.8	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	1	5.4	5.4	5.4	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	06/16/89-06/16/89	1	5.4	5.4	5.4	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/16/89-06/16/89	1	3.981	3.981	3.981	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/06/89-12/06/89	1	1.	1.	1.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	12/06/89-12/06/89	1##	0.5	0.5	0.5	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/06/89-07/24/91	2	85.	85.	150.	20.	8450.	91.924	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	12/06/89-12/06/89	1	150.	150.	150.	0.	0.	**	**	**	**
01020	BORON, DISSOLVED (UG/L AS B)	12/06/89-12/06/89	1	290.	290.	290.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	12/06/89-12/06/89	1	280.	280.	280.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/06/89-07/24/91	2##	5.	5.	5.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	12/06/89-12/06/89	1##	5.	5.	5.	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/06/89-07/24/91	2##	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	12/06/89-12/06/89	1##	5.	5.	5.	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	12/06/89-07/24/91	2##	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	12/06/89-12/06/89	1##	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	12/06/89-12/06/89	1	8000.	8000.	8000.	8000.	0.	0.	**	**	**

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### Parameter Inventory for Station: RICH0044

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01046	IRON, DISSOLVED (UG/L AS FE)	12/06/89-07/24/91	2	4260.	4260.	8390.	130.	34113800.	5840.702	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	12/06/89-07/24/91	2##	25.	25.	25.	25.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	12/06/89-12/06/89	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	12/06/89-12/06/89	1	1180.	1180.	1180.	1180.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	12/06/89-07/24/91	2	1470.	1470.	1690.	1250.	96800.	311.127	**	**	**	**
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	12/06/89-07/24/91	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01062	MOLYBDENUM, TOTAL (UG/L AS MO)	12/06/89-12/06/89	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	12/06/89-07/24/91	2##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	12/06/89-12/06/89	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	12/06/89-12/06/89	1	90.	90.	90.	90.	0.	0.	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	12/06/89-12/06/89	1	90.	90.	90.	90.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	12/06/89-12/06/89	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01087	VANADIUM, TOTAL (UG/L AS V)	12/06/89-12/06/89	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/06/89-07/24/91	2##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	12/06/89-12/06/89	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	12/06/89-12/06/89	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	12/06/89-07/24/91	2##	50.	50.	50.	50.	0.	0.	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	12/06/89-12/06/89	1	7650.	7650.	7650.	7650.	0.	0.	**	**	**	**
01142	SILICON, TOTAL (UG/L AS SI)	12/06/89-12/06/89	1	7600.	7600.	7600.	7600.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/06/89-12/06/89	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	12/06/89-12/06/89	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01150	TITANIUM, DISSOLVED (UG/L AS TI)	12/06/89-12/06/89	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01152	TITANIUM, TOTAL (UG/L AS TI)	12/06/89-12/06/89	1	20.	20.	20.	20.	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	14500.	14500.	21700.	7300.	103680000.	10182.338	**	**	**	**
50120	ARSENIC, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
50122	BARIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	79.5	79.5	113.	46.	2244.5	47.376	**	**	**	**
50125	CADMUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2##	0.9	0.9	1.3	0.5	0.32	0.566	**	**	**	**
50127	CHROMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	11.35	11.35	12.	10.7	0.845	0.919	**	**	**	**
50128	COPPER, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	8.5	8.5	12.	5.	24.5	4.95	**	**	**	**
50129	IRON, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	12555.	12555.	23500.	1610.	239586050.	15478.567	**	**	**	**
50132	MANGANESE, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	140.	140.	180.	100.	3200.	56.569	**	**	**	**
50133	MOLYBDENUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2##	0.275	0.275	0.5	0.05	0.101	0.318	**	**	**	**
50135	NICKEL, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	7.05	7.05	10.	4.1	17.405	4.172	**	**	**	**
50136	LEAD, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	54.	54.	93.	15.	3042.	55.154	**	**	**	**
50138	SELENIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
50140	STRONTIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	6.	6.	6.	6.	0.	0.	**	**	**	**
50141	TITANIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	600.	600.	600.	600.	0.	0.	**	**	**	**
50142	VANADIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	28.	28.	28.	28.	0.	0.	**	**	**	**
50143	ZINC, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	45.	45.	63.	27.	648.	25.456	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	12/06/89-07/24/91	2##	1.75	1.75	3.	0.5	3.125	1.768	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	12/06/89-12/06/89	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71921	MERCURY, TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	12/06/89-07/24/91	2##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0044

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	1	1.00			1	1	1.00						
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00			1	0	0.00						
01000	ARSENIC, DISSOLVED	Other-Lo Lim.	6.5	1	1	1.00			1	0	0.00						
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00			1	0	0.00						
01005	BARIUM, DISSOLVED	Drinking Water	50.	1	0	0.00			1	0	0.00						
01007	BARIUM, TOTAL	Fresh Acute	360.	1	0	0.00			1	0	0.00						
01025	CADMUM, DISSOLVED	Drinking Water	2000.	2	0	0.00	1	0	0.00	1	0	0.00					
		Drinking Water	2000.	1	0	0.00			1	0	0.00						
		Fresh Acute	3.9	0 &	0	0.00			1	0	0.00						
		Drinking Water	5.	0 &	0	0.00			1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0044

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01027 CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
	Drinking Water	5.	0 &	0	0.00												
01030 CHROMIUM, DISSOLVED	Drinking Water	100.	2	0	0.00	1	0	0.00	1	0	0.00						
01034 CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
01040 COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	1300.	2	0	0.00	1	0	0.00	1	0	0.00						
01042 COPPER, TOTAL	Fresh Acute	18.	1	0	0.00					1	0	0.00					
	Drinking Water	1300.	1	0	0.00					1	0	0.00					
01049 LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	15.	0 &	0	0.00												
01051 LEAD, TOTAL	Fresh Acute	82.	1	0	0.00					1	0	0.00					
	Drinking Water	15.	0 &	0	0.00												
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	100.	2	0	0.00	1	0	0.00	1	0	0.00						
01067 NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00					1	0	0.00					
	Drinking Water	100.	1	0	0.00					1	0	0.00					
01090 ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	5000.	2	0	0.00	1	0	0.00	1	0	0.00						
01092 ZINC, TOTAL	Fresh Acute	120.	1	0	0.00					1	0	0.00					
	Drinking Water	5000.	1	0	0.00					1	0	0.00					
01145 SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00					1	0	0.00					
	Drinking Water	50.	1	0	0.00					1	0	0.00					
01147 SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00					1	0	0.00					
	Drinking Water	50.	1	0	0.00					1	0	0.00					
71890 MERCURY, DISSOLVED	Fresh Acute	2.4	2	1	0.50	1	1	1.00	1	0	0.00						
	Drinking Water	2.	2	1	0.50	1	1	1.00	1	0	0.00						
71900 MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00					1	0	0.00					
	Drinking Water	2.	1	0	0.00					1	0	0.00					

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0045

NPS Station ID: RICH0045  
Location: UNNAMED TRIBUTARY OF JAMES RIVER

Station Type: /TYP/A/AMBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF VA 7.5 MINUTE SERIES PARK (RICH) BOUNDARIES. THE SITE IS AT AN UNNAMED TRIBUTARY OF 2 SEPTEMBER 1997 AS PART OF A BASELINE MONITORING PROJECT TO ASSESS THE IMPACT OF A NEARBY COUNTY LANDFILL (ACQUIRED BY RICH DURING THE 1970'S) ON THE TRIBUTARY. THE TRIBUTARY'S SOURCE COLLECTS RUNOFF FROM AN AREA NORTHEAST OF THE PARK THAT INCLUDES ASPHALT STORAGE CONTAINERS. DATA ARE FROM AN ANALYTICAL REPORT TITLED "DREWRY'S BLUFF PROJECT."

LAT/LON: 37.420726/ -77.423003

Agency: 11NPSWRD  
FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
STORET Station ID(s): RICH\_NPS\_4  
Within Park Boundary: Yes

Date Created: 07/17/99

Depth of Water: 0  
Elevation: 0

RF1 Mile Point: 0.000  
RF3 Mile Point: 1.58

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 0.00  
Distance from RF3: 0.29

On/Off RF1:  
On/Off RF3:

## Parameter Inventory for Station: RICH0045

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	2	1655.5	1655.5	1945.	1366.	167620.5	409.415	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	2	5.09	5.09	9.59	0.59	40.5	6.364	**	**	**	**
01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	2	87.38	87.38	94.67	80.09	106.288	10.31	**	**	**	**
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	2	1.73	1.73	2.02	1.44	0.168	0.41	**	**	**	**
01018	IRON.TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	2	22989.95	22989.95	35782.8	10197.1	327314022.245	18091.822	**	**	**	**
01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	2##	4.575	4.575	7.8	3.35	20.801	4.561	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	2	0.185	0.185	0.19	0.18	0	0.007	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	2	13.78	13.78	19.46	8.1	64.525	8.033	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	2	12.325	12.325	16.13	8.52	28.956	5.381	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	2	37.305	37.305	39.21	35.4	7.258	2.694	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	2	197.8	197.8	226.1	169.5	1601.78	40.022	**	**	**	**
01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	2##	0.008	0.008	0.015	0.	0.	0.011	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	2	10.575	10.575	12.7	8.45	9.031	3.005	**	**	**	**
01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	2	11.24	11.24	13.05	9.43	6.552	2.56	**	**	**	**
01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	2	12.07	12.07	22.82	1.32	231.125	15.203	**	**	**	**
01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	2	7115.25	7115.25	8682.5	5548.	4912545.125	2216.426	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	2##	0.015	0.015	0.03	0.	0.	0.021	**	**	**	**
01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	2	43.44	43.44	51.04	35.84	115.52	10.748	**	**	**	**
34203	ACENAPHTHYLENE DRY WGTBOTUG/KG	09/02/97-09/02/97	1	5.8	5.8	5.8	5.8	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0045

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34208 ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
34223 ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	19.7	19.7	19.7	19.7	0.	0.	**	**	**	**
34233 BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	56.6	56.6	56.6	56.6	0.	0.	**	**	**	**
34245 BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	1	23.3	23.3	23.3	23.3	0.	0.	**	**	**	**
34250 BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	25.8	25.8	25.8	25.8	0.	0.	**	**	**	**
34257 B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
34262 DELTA BENZENE HEXACHLORIDE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
34323 CHRYSENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	30.7	30.7	30.7	30.7	0.	0.	**	**	**	**
34359 ENDOSULFAN, BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
34379 FLUORANTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	25.9	25.9	25.9	25.9	0.	0.	**	**	**	**
34384 FLUORENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	11.	11.	11.	11.	0.	0.	**	**	**	**
34406 INDENO (1,2,3-CD) PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	22.8	22.8	22.8	22.8	0.	0.	**	**	**	**
34445 NAPHTHALENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	1.55	1.55	1.55	1.55	0.	0.	**	**	**	**
34464 PHENANTHRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	8.4	8.4	8.4	8.4	0.	0.	**	**	**	**
34472 PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	29.4	29.4	29.4	29.4	0.	0.	**	**	**	**
34524 BENZO(GH)PERYLENE,1,2-BENZOPERYLENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	23.1	23.1	23.1	23.1	0.	0.	**	**	**	**
34529 BENZO(A)ANTHRACENE,1,2-BENZANTHRACENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	48.7	48.7	48.7	48.7	0.	0.	**	**	**	**
39070 CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	1	1.56	1.56	1.56	1.56	0.	0.	**	**	**	**
39076 BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	1	0.43	0.43	0.43	0.43	0.	0.	**	**	**	**
39301 P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	1.11	1.11	1.11	1.11	0.	0.	**	**	**	**
39306 O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	1.77	1.77	1.77	1.77	0.	0.	**	**	**	**
39316 O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	3.17	3.17	3.17	3.17	0.	0.	**	**	**	**
39321 P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.94	0.94	0.94	0.94	0.	0.	**	**	**	**
39328 O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
39333 ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39343 GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
39383 DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
39393 ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39413 HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39423 HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39758 MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
45095 C2 ALKYL DIBENZOTHOIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	1	66.6	66.6	66.6	66.6	0.	0.	**	**	**	**
49724 PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	20.4	20.4	20.4	20.4	0.	0.	**	**	**	**
49743 BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	40.7	40.7	40.7	40.7	0.	0.	**	**	**	**
49759 C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	25.7	25.7	25.7	25.7	0.	0.	**	**	**	**
49760 C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	71.	71.	71.	71.	0.	0.	**	**	**	**
49761 C3 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	147.5	147.5	147.5	147.5	0.	0.	**	**	**	**
49767 C1 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	13.9	13.9	13.9	13.9	0.	0.	**	**	**	**
49769 C3 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	75.2	75.2	75.2	75.2	0.	0.	**	**	**	**
49782 NAPHTHALENE, C1 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1##	2.05	2.05	2.05	2.05	0.	0.	**	**	**	**
49783 NAPHTHALENE, C2 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	6.8	6.8	6.8	6.8	0.	0.	**	**	**	**
49784 NAPHTHALENE, C3 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	34.7	34.7	34.7	34.7	0.	0.	**	**	**	**
49785 NAPHTHALENE, C4 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	138.9	138.9	138.9	138.9	0.	0.	**	**	**	**
49805 C1 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	84.9	84.9	84.9	84.9	0.	0.	**	**	**	**
49806 C2 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	126.1	126.1	126.1	126.1	0.	0.	**	**	**	**
49807 C3 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	50.	50.	50.	50.	0.	0.	**	**	**	**
49808 C4 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	4.6	4.6	4.6	4.6	0.	0.	**	**	**	**
50590 PCB CONGENER IUPAC#107, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.64	0.64	0.64	0.64	0.	0.	**	**	**	**
50592 PCB CONGENER IUPAC#207, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.38	0.38	0.38	0.38	0.	0.	**	**	**	**
50595 PCB CONGENER IUPAC#25, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50596 PCB CONGENER IUPAC#29, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50601 PCB CONGENER IUPAC#53, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.16	1.16	1.16	1.16	0.	0.	**	**	**	**
50602 PCB CONGENER IUPAC#63, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50603 PCB CONGENER IUPAC#81, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50604 PCB CONGENER IUPAC#84, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50605 PCB CONGENER IUPAC#1, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
50607 PCB CONGENER IUPAC#205, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50609 PCB CONGENER IUPAC#193, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50610 PCB CONGENER IUPAC#191, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50611 PCB CONGENER IUPAC#189, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
50612 PCB CONGENER IUPAC#175, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
50614 PCB CONGENER IUPAC#130, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50615 PCB CONGENER IUPAC#119, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0045

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50784	ALPHA-CHLORDANE SEDIMENT,DRY WT,BOTTOM DEP UG/KG	09/02/97-09/02/97	1	4.69	4.69	4.69	4.69	0.	0.	**	**	**	**
50910	DIBENZO(A,H)ANTHRACENE SED DRY WEIGHT BOTTOM UG/KG	09/02/97-09/02/97	1	8.3	8.3	8.3	8.3	0.	0.	**	**	**	**
50942	1-METHYLPHENANTHRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	10.4	10.4	10.4	10.4	0.	0.	**	**	**	**
50943	2,6-DIMETHYLNAPHTHALENE, DRY WEIGHT, SEDIMENTUG/KG	09/02/97-09/02/97	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
50947	PCB CONGENER #28 (CL3), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.82	0.82	0.82	0.82	0.	0.	**	**	**	**
50948	PCB CONGENER #52 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	2.12	2.12	2.12	2.12	0.	0.	**	**	**	**
50949	PCB CONGENER #44 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.71	0.71	0.71	0.71	0.	0.	**	**	**	**
50950	PCB CONGENER #66 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50951	PCB CONGENER #77/110 (CL4/CLS) DRY WGT,SED UG/KG	09/02/97-09/02/97	1	2.06	2.06	2.06	2.06	0.	0.	**	**	**	**
50953	PCB CONGENER #118 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.68	0.68	0.68	0.68	0.	0.	**	**	**	**
50955	PCB CONGENER #105 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.19	0.19	0.19	0.19	0.	0.	**	**	**	**
50958	PCB CONGENER #187 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
50959	PCB CONGENER #128 (CL6), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.72	0.72	0.72	0.72	0.	0.	**	**	**	**
50960	PCB CONGENER #180 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
50963	PCB CONGENER #206 (CL9), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
50964	PCB CONGENER #209 (CL10),DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50966	GAMMA-CHLORDANE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	5.09	5.09	5.09	5.09	0.	0.	**	**	**	**
61080	1,6,7-TRIMETHYLNAPHTHALENE SEDIMENT DRY WT UG/KG	09/02/97-09/02/97	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
61098	C4-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	51.4	51.4	51.4	51.4	0.	0.	**	**	**	**
61100	C3-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	87.	87.	87.	87.	0.	0.	**	**	**	**
61101	C2-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	91.4	91.4	91.4	91.4	0.	0.	**	**	**	**
61104	C1-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	32.8	32.8	32.8	32.8	0.	0.	**	**	**	**
61105	C1-FLUORANTHENES+PYRENES SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	38.7	38.7	38.7	38.7	0.	0.	**	**	**	**
61115	PCB CONGENER #169 (C16) SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61160	PCB CONGENER #126 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.52	0.52	0.52	0.52	0.	0.	**	**	**	**
61161	PCB CONGENER # 77 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61197	TRICHLOROBIPHENYL,2,3',5,-,(PCB#26)DRY WT BOT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61239	PAHS WITHOUT PERYLENE,TOTAL,SEDIMENT,DRY WT UG/KG	09/02/97-09/02/97	1	1551.	1551.	1551.	1551.	0.	0.	**	**	**	**
61261	PCB CONGENER #8/5, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61262	PCB CONGENER #195/208, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
61263	PCB CONGENER #18/17, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61264	PCB CONGENER #170/190, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61265	PCB CONGENER #153/132, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.79	0.79	0.79	0.79	0.	0.	**	**	**	**
61266	PCB CONGENER #138/160, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.47	1.47	1.47	1.47	0.	0.	**	**	**	**
61268	PCB CONGENER #101/90, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.53	0.53	0.53	0.53	0.	0.	**	**	**	**
61285	1-METHYLNAPHTHALENE, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
61783	PCB CONGERNER #80/95 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.45	0.45	0.45	0.45	0.	0.	**	**	**	**
61784	PCB CONGERNER #61/74 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.47	0.47	0.47	0.47	0.	0.	**	**	**	**
61785	PCB CONGERNER #41/64 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61786	PCB CONGERNER #37/42/59 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61787	PCB CONGERNER #47/75 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61788	PCB CONGERNER #22/51 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61789	PCB CONGERNER #20/33 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.28	0.28	0.28	0.28	0.	0.	**	**	**	**
61794	POLYAMMATIC HYDROCARBON TOT W/ PERYLN SED DRYUG/KG	09/02/97-09/02/97	1	1571.7	1571.7	1571.7	1571.7	0.	0.	**	**	**	**
61795	PCB CONGERNER #196/203 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61796	PCB CONGERNER #153/173/201 SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
61797	PCB CONGERNER #171/202 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
61798	PCB CONGERNER #176/137 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61799	PCB CONGERNER #141/179 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.36	0.36	0.36	0.36	0.	0.	**	**	**	**
61800	PCB CONGERNER #123/149 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.46	0.46	0.46	0.46	0.	0.	**	**	**	**
61801	PCB CONGERNER #87/115 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.48	0.48	0.48	0.48	0.	0.	**	**	**	**
61802	PCB CONGERNER #56/60 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61803	PCB CONGERNER #55/91 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61804	PCB CONGERNER #16/32 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61805	PCB CONGERNER #24/27 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61806	PCB CONGERNER #7/9 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	1.48	1.48	1.48	1.48	0.	0.	**	**	**	**
61807	PCB CONGERNER #194 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.66	0.66	0.66	0.66	0.	0.	**	**	**	**
61808	PCB CONGERNER #199 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.42	0.42	0.42	0.42	0.	0.	**	**	**	**
61809	PCB CONGERNER #200 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61810	PCB CONGERNER #197 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61811	PCB CONGERNER #172 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.32	0.32	0.32	0.32	0.	0.	**	**	**	**
61812	PCB CONGERNER #156 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
61813	PCB CONGERNER #177 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0045

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
61814	PCB CONGERNER #174 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
61815	PCB CONGERNER #185 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61816	PCB CONGERNER #167 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61817	PCB CONGERNER #183 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.22	0.22	0.22	0.22	0.	0.	**	**	**	**
61818	PCB CONGERNER #166 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61819	PCB CONGERNER #178 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61820	PCB CONGERNER #129 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61821	PCB CONGERNER #158 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61822	PCB CONGERNER #146 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
61823	PCB CONGERNER #114 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61824	PCB CONGERNER #135 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
61825	PCB CONGERNER #151 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
61826	PCB CONGERNER #82 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61827	PCB CONGERNER #136 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61828	PCB CONGERNER #85 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**
61829	PCB CONGERNER #97 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61830	PCB CONGERNER #83 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**
61831	PCB CONGERNER #99 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
61832	PCB CONGERNER #92 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61833	PCB CONGERNER #70 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**
61834	PCB CONGERNER #67 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61835	PCB CONGERNER #40 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
61836	PCB CONGERNER #72 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61837	PCB CONGERNER #48 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	1.73	1.73	1.73	1.73	0.	0.	**	**	**	**
61838	PCB CONGERNER #49 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	2.55	2.55	2.55	2.55	0.	0.	**	**	**	**
61839	PCB CONGERNER #69 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.38	0.38	0.38	0.38	0.	0.	**	**	**	**
61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.33	0.33	0.33	0.33	0.	0.	**	**	**	**
61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61846	4,4'DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.23	0.23	0.23	0.23	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	2##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
75042	HEXAChLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.84	0.84	0.84	0.84	0.	0.	**	**	**	**
75558	BIPHENYL SEDIMENT,DRY WGT UG/KG	09/02/97-09/02/97	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
75714	DIBENZO(BD)THIOPHENE(DIPHEN*)SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	1	5.	5.	5.	5.	0.	0.	**	**	**	**
78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	1	2.65	2.65	2.65	2.65	0.	0.	**	**	**	**
78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	1.15	1.15	1.15	1.15	0.	0.	**	**	**	**
79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.96	0.96	0.96	0.96	0.	0.	**	**	**	**
79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.46	0.46	0.46	0.46	0.	0.	**	**	**	**
79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	1.4	1.4	1.4	1.4	0.	0.	**	**	**	**
79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	5.68	5.68	5.68	5.68	0.	0.	**	**	**	**
81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	2	47.1	47.1	47.1	47.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0046

NPS Station ID: RICH0046  
 Location: BAILEY CREEK,, RT. 5 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: BAILEY CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP

LAT/LON: 37.420837/ -77.297503

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-BAY000.42  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

## Parameter Inventory for Station: RICH0046

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-06/04/97	2	11.2	11.2	15.	7.4	28.88	5.374	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/09/94-06/04/97	2	58.5	58.5	68.	49.	180.5	13.435	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-06/04/97	2	9.8	9.8	10.3	9.3	0.5	0.707	**	**	**	**
00400	PH (STANDARD UNITS)	12/09/94-06/04/97	2	5.81	5.81	5.83	5.79	0.001	0.028	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/09/94-06/04/97	2	5.81	5.81	5.83	5.79	0.001	0.028	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/09/94-06/04/97	2	1.55	1.55	1.622	1.479	0.01	0.101	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0046

Parameter	Std. Type	Std. Value	Total	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	2	0	0.00		1	0	0.00	1	0	0.00	
00400	PH	Fresh Chronic	9.	2	0	0.00		1	0	0.00	1	0	0.00	
		Other-Lo Lim.	6.5	2	2	1.00		1	1	1.00	1	1	1.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0047

NPS Station ID: RICH0047	LAT/LON: 37.420948/ -77.423449		Date Created: 07/12/97
Location: LANDFILL ASSESSMENT FOR RICH STATION FD-03			
Station Type: /TYP/A/MBNT/STREAM			
RMI-Indexes:			
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: JAMES RIVER		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:	THE SITE IS LOCATED ON THE DREWRY'S BLUFF VIRGINIA-CHESTERFIELD CO. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS INSIDE THE FORT DARLING UNIT OF THE RICHMOND NATIONAL BATTLEFIELD PARK. THE SITE IS LOCATED 70 METERS BELOW THE VISITOR FOOT BRIDGE AND BELOW THE INITIAL LEACHATE STAIN. THE STUDY MEASURED POSSIBLE CONTAMINATION OF AN UNNAMED TRIBUTARY TO THE JAMES RIVER. THE LEACHATE WAS PRESUMED TO BE FROM A LANDFILL ADJACENT TO THE PARK. THE LANDFILL CLOSED IN 1972 AND WAS COVERED WITH TOPSOIL; CONTOURED AND REVEGETATED. AT THE TIME OF THE STUDY THERE WAS VISIBLE SUBLISSION IN THE LANDFILL'S EARTHEN CAP AND AN ORANGE-REDDISH LEACHATE STAIN IN THE CHANNEL. THE DATA IS FROM A STUDY BY DEL NIMMO ET AL. "ASSESSMENT OF AN URBAN LANDFILL ON TRIBUTARY WATER QUALITY." FOR MORE INFORMATION CONTACT MIKE BRENNAN RESOURCES MANAGEMENT SPECIALIST RICHMOND NATIONAL BATTLEFIELD PARK. PH.804-795-5019. DATA PROCESSED AND UPLOADED TO STORET BY CURTIS COOPER NPS-WRD FT COLLINS CO 80525, PH.970-225-3516.		

## Parameter Inventory for Station: RICH0047

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	1	4100.	4100.	4100.	4100.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	1	3.6	3.6	3.6	3.6	0.	0.	**	**	**	**
00406 PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	1	5.3	5.3	5.3	5.3	0.	0.	**	**	**	**
00406 CONVERTED PH, FIELD, STANDARD UNITS	06/16/89-06/16/89	1	5.3	5.3	5.3	5.3	0.	0.	**	**	**	**
00406 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/16/89-06/16/89	1	5.012	5.012	5.012	5.012	0.	0.	**	**	**	**
01000 ARSENIC, DISSOLVED (UG/L AS AS)	12/06/89-12/06/89	1	2.	2.	2.	2.	0.	0.	**	**	**	**
01002 ARSENIC, TOTAL (UG/L AS AS)	12/06/89-12/06/89	1	2.	2.	2.	2.	0.	0.	**	**	**	**
01005 BARIUM, DISSOLVED (UG/L AS BA)	12/06/89-07/24/91	2	135.	135.	210.	60.	11250.	106.066	**	**	**	**
01007 BARIUM, TOTAL (UG/L AS BA)	12/06/89-12/06/89	1	210.	210.	210.	210.	0.	0.	**	**	**	**
01020 BORON, DISSOLVED (UG/L AS B)	12/06/89-12/06/89	1	540.	540.	540.	540.	0.	0.	**	**	**	**
01022 BORON, TOTAL (UG/L AS B)	12/06/89-12/06/89	1	540.	540.	540.	540.	0.	0.	**	**	**	**
01025 CADMIUM, DISSOLVED (UG/L AS CD)	12/06/89-07/24/91	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	12/06/89-12/06/89	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01030 CHROMIUM, DISSOLVED (UG/L AS CR)	12/06/89-07/24/91	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	12/06/89-12/06/89	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040 COPPER, DISSOLVED (UG/L AS CU)	12/06/89-07/24/91	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	12/06/89-12/06/89	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01045 IRON, TOTAL (UG/L AS FE)	12/06/89-12/06/89	1	21400.	21400.	21400.	21400.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0047

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01046	IRON, DISSOLVED (UG/L AS FE)	12/06/89-07/24/91	2	15040.	15040.	21600.	8480.	86067200.	9277.241	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	12/06/89-07/24/91	2##	25.	25.	25.	0.	0.	**	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	12/06/89-12/06/89	1##	25.	25.	25.	0.	0.	**	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	12/06/89-12/06/89	1	1680.	1680.	1680.	1680.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	12/06/89-07/24/91	2	865.	865.	1690.	40.	1361250.	1166.726	**	**	**	**
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	12/06/89-07/24/91	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01062	MOLYBDENUM, TOTAL (UG/L AS MO)	12/06/89-12/06/89	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	12/06/89-07/24/91	2##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	12/06/89-12/06/89	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	12/06/89-12/06/89	1	120.	120.	120.	120.	0.	0.	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	12/06/89-12/06/89	1	110.	110.	110.	110.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	12/06/89-12/06/89	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01087	VANADIUM, TOTAL (UG/L AS V)	12/06/89-12/06/89	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/06/89-07/24/91	2##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	12/06/89-12/06/89	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	12/06/89-12/06/89	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	12/06/89-07/24/91	2##	6575.	6575.	13100.	50.	85151250.	9227.743	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	12/06/89-12/06/89	1	6190.	6190.	6190.	6190.	0.	0.	**	**	**	**
01142	SILICON, TOTAL (UG/L AS SI)	12/06/89-12/06/89	1	6120.	6120.	6120.	6120.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/06/89-12/06/89	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	12/06/89-12/06/89	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01150	TITANIUM, DISSOLVED (UG/L AS TI)	12/06/89-12/06/89	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01152	TITANIUM, TOTAL (UG/L AS TI)	12/06/89-12/06/89	1	20.	20.	20.	20.	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	25200.	25200.	36700.	13700.	264500000.	16263.456	**	**	**	**
50120	ARSENIC, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	8.8	8.8	8.8	8.8	0.	0.	**	**	**	**
50122	BARIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	187.	187.	266.	108.	12482.	111.723	**	**	**	**
50125	CADMUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	1.15	1.15	1.2	1.1	0.005	0.071	**	**	**	**
50127	CHROMIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	13.1	13.1	25.	1.2	283.22	16.829	**	**	**	**
50128	COPPER, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	13.	13.	16.	10.	18.	4.243	**	**	**	**
50129	IRON, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	22200.	22200.	26800.	17600.	42320000.	6505.382	**	**	**	**
50132	MANGANESE, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	315.	315.	330.	300.	450.	21.213	**	**	**	**
50133	MOLYBDENUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2##	2.175	2.175	4.3	0.05	9.031	3.005	**	**	**	**
50135	NICKEL, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	8.05	8.05	9.1	7.	2.205	1.485	**	**	**	**
50136	LEAD, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	15.5	15.5	28.	3.	312.5	17.678	**	**	**	**
50138	SELENIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
50140	STRONTIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	23.	23.	23.	23.	0.	0.	**	**	**	**
50141	TITANIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	800.	800.	800.	800.	0.	0.	**	**	**	**
50142	VANADIUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-12/06/89	1	170.	170.	170.	170.	0.	0.	**	**	**	**
50143	ZINC, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	12/06/89-07/24/91	2	63.5	63.5	99.	28.	2520.5	50.205	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	12/06/89-07/24/91	2##	1.75	1.75	3.	0.5	3.125	1.768	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	12/06/89-12/06/89	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71921	MERCURY, TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	12/06/89-07/24/91	2##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0047

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	1	1	1.00					1	1	1.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0	0.00					1	0	0.00			
01000	ARSENIC, DISSOLVED	Other-Lo Lim.	6.5	1	1	1	1.00					1	1	1.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0	0.00					1	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	50.	1	0	0	0.00					1	0	0.00			
01007	BARIUM, TOTAL	Fresh Acute	360.	1	0	0	0.00					1	0	0.00			
01025	CADMUM, DISSOLVED	Drinking Water	2000.	2	0	0	0.00	1	0	0.00	1	0	0.00				
		Drinking Water	2000.	1	0	0	0.00				1	0	0.00				
		Fresh Acute	3.9	0 &	0	0	0.00				1	0	0.00				
		Drinking Water	5.	0 &	0	0	0.00				1	0	0.00				

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0047

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01027 CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
	Drinking Water	5.	0 &	0	0.00												
01030 CHROMIUM, DISSOLVED	Drinking Water	100.	2	0	0.00	1	0	0.00	1	0	0.00						
01034 CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
01040 COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	1300.	2	0	0.00	1	0	0.00	1	0	0.00						
01042 COPPER, TOTAL	Fresh Acute	18.	1	0	0.00					1	0	0.00					
	Drinking Water	1300.	1	0	0.00					1	0	0.00					
01049 LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	15.	0 &	0	0.00												
01051 LEAD, TOTAL	Fresh Acute	82.	1	0	0.00					1	0	0.00					
	Drinking Water	15.	0 &	0	0.00												
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	100.	2	0	0.00	1	0	0.00	1	0	0.00						
01067 NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00					1	0	0.00					
	Drinking Water	100.	1	0	0.00					1	0	0.00					
01090 ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	5000.	2	0	0.00	1	0	0.00	1	0	0.00						
01092 ZINC, TOTAL	Fresh Acute	120.	1	0	0.00					1	0	0.00					
	Drinking Water	5000.	1	0	0.00					1	0	0.00					
01145 SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00					1	0	0.00					
	Drinking Water	50.	1	0	0.00					1	0	0.00					
01147 SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00					1	0	0.00					
	Drinking Water	50.	1	0	0.00					1	0	0.00					
71890 MERCURY, DISSOLVED	Fresh Acute	2.4	2	1	0.50	1	1	1.00	1	0	0.00						
	Drinking Water	2.	2	1	0.50	1	1	1.00	1	0	0.00						
71900 MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00					1	0	0.00					
	Drinking Water	2.	1	0	0.00					1	0	0.00					

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0048

NPS Station ID: RICH0048  
 Location: UNNAMED TRIBUTARY OF JAMES RIVER  
 Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:  
 RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF VA 7.5 MINUTE SERIES PARK (RICH) BOUNDARIES. THE SITE IS AT AN UNNAMED TRIBUTARY OF 2 SEPTEMBER 1997 AS PART OF A BASELINE MONITORING PROJECT TO ASSESS THE IMPACT OF A NEARBY COUNTY LANDFILL (ACQUIRED BY RICH DURING THE 1970'S) ON THE TRIBUTARY. THE TRIBUTARY'S SOURCE COLLECTS RUNOFF FROM AN AREA NORTHEAST OF THE PARK THAT INCLUDES ASPHALT STORAGE CONTAINERS. DATA ARE FROM AN ANALYTICAL REPORT TITLED "DREWRY'S BLUFF PROJECT."

LAT/LON: 37.420976/ -77.421088

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

Agency: 11NPSWRD  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): RICH\_NPS\_2  
 Within Park Boundary: Yes

Date Created: 07/17/99

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

(TOPOGRAPHIC) QUADRANGLE AND IS INSIDE THE RICHMOND NATIONAL BATTLEFIELD JAMES RIVER NEAR DREWRY'S BLUFF. DATA WERE COLLECTED ON ANALYTICAL REPORT NO. 7C480-A; BY TEXAS A&M UNIVERSITY'S GEOCHEMICAL AND ENVIRONMENTAL RESEARCH GROUP. FOR MORE INFORMATION CONTACT THE CHIEF OF RESOURCES AT RICH; 3215 EAST BROAD STREET; RICHMOND VA 23223; TEL(804)226-1981. DATA WERE PROCESSED AND UPLOADED TO STORET BY SHAWNDRAY MAWHORTER; NPS-WRD; 1201 OAKRIDGE DRIVE SUITE 250; FORT COLLINS CO 80528; TEL(970)225-3516.

## Parameter Inventory for Station: RICH0048

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00924	MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	1	247.5	247.5	247.5	247.5	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01008	BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	1	16.61	16.61	16.61	16.61	0.	0.	**	**	**	**
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	1	0.45	0.45	0.45	0.45	0.	0.	**	**	**	**
01018	IRON,TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	1	6260.8	6260.8	6260.8	6260.8	0.	0.	**	**	**	**
01023	BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	1	6.8	6.8	6.8	6.8	0.	0.	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	4.54	4.54	4.54	4.54	0.	0.	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	1	2.13	2.13	2.13	2.13	0.	0.	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	1	7.73	7.73	7.73	7.73	0.	0.	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	1	46.48	46.48	46.48	46.48	0.	0.	**	**	**	**
01063	MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1##	1.29	1.29	1.29	1.29	0.	0.	**	**	**	**
01083	STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	1##	1.02	1.02	1.02	1.02	0.	0.	**	**	**	**
01088	VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	1	5.82	5.82	5.82	5.82	0.	0.	**	**	**	**
01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	1	1611.2	1611.2	1611.2	1611.2	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	1##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
01157	ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	1	8.88	8.88	8.88	8.88	0.	0.	**	**	**	**
34203	ACENAPHTHYLENE DRY WGTBOTUG/KG	09/02/97-09/02/97	1##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0048

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.2	0.2	0.2	0.	0.	0.	**	**	**	**
34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	1.2	1.2	1.2	0.	0.	0.	**	**	**	**
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	4.9	4.9	4.9	4.9	0.	0.	**	**	**	**
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	4.6	4.6	4.6	4.6	0.	0.	**	**	**	**
34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
34262	DELTA BENZENE HEXACHLORIDE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
34323	CHRYSENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
34359	ENDOSULFAN, BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
34379	FLUORANTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	4.1	4.1	4.1	4.1	0.	0.	**	**	**	**
34384	FLUORENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
34406	INDENO (1,2,3-CD) PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
34445	NAPHTHALENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
34464	PHENANTHRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
34472	PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	5.4	5.4	5.4	5.4	0.	0.	**	**	**	**
34524	BENZO(GH)PERYLENE,1,2-BENZOPERYLENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	4.7	4.7	4.7	4.7	0.	0.	**	**	**	**
34529	BENZO(A)ANTHRACENE,1,2-BENZANTHRACENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	3.5	3.5	3.5	3.5	0.	0.	**	**	**	**
39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39306	O,O' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39316	O,O'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39328	O,O'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
45095	C2 ALKYL DIBENZOTHOIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	1	10.1	10.1	10.1	10.1	0.	0.	**	**	**	**
49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	4.5	4.5	4.5	4.5	0.	0.	**	**	**	**
49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	6.1	6.1	6.1	6.1	0.	0.	**	**	**	**
49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	2.3	2.3	2.3	2.3	0.	0.	**	**	**	**
49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	6.	6.	6.	6.	0.	0.	**	**	**	**
49761	C3 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	12.8	12.8	12.8	12.8	0.	0.	**	**	**	**
49767	C1 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
49769	C3 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	20.8	20.8	20.8	20.8	0.	0.	**	**	**	**
49782	NAPHTHALENE, C1 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1##	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
49783	NAPHTHALENE, C2 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**
49784	NAPHTHALENE, C3 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	3.7	3.7	3.7	3.7	0.	0.	**	**	**	**
49785	NAPHTHALENE, C4 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
49805	C1 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	17.6	17.6	17.6	17.6	0.	0.	**	**	**	**
49806	C2 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	37.	37.	37.	37.	0.	0.	**	**	**	**
49807	C3 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**	**
49808	C4 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	9.2	9.2	9.2	9.2	0.	0.	**	**	**	**
50590	PCB CONGENER IUPAC#107, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
50592	PCB CONGENER IUPAC#207, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50595	PCB CONGENER IUPAC#25, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50596	PCB CONGENER IUPAC#29, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50601	PCB CONGENER IUPAC#53, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
50602	PCB CONGENER IUPAC#63, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50603	PCB CONGENER IUPAC#81, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50604	PCB CONGENER IUPAC#84, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
50605	PCB CONGENER IUPAC#1, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.93	0.93	0.93	0.93	0.	0.	**	**	**	**
50607	PCB CONGENER IUPAC#205, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50609	PCB CONGENER IUPAC#193, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50610	PCB CONGENER IUPAC#191, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50611	PCB CONGENER IUPAC#189, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50612	PCB CONGENER IUPAC#175, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
50614	PCB CONGENER IUPAC#130, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
50615	PCB CONGENER IUPAC#119, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0048

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50784	ALPHA-CHLORDANE SEDIMENT,DRY WT,BOTTOM DEP UG/KG	09/02/97-09/02/97	1	0.42	0.42	0.42	0.42	0.	0.	**	**	**	**
50910	DIBENZO(A,H)ANTHRACENE SED DRY WEIGHT BOTTOM UG/KG	09/02/97-09/02/97	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
50942	1-METHYLPHENANTHRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
50943	2,6-DIMETHYLNAPHTHALENE, DRY WEIGHT, SEDIMENTUG/KG	09/02/97-09/02/97	1##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50947	PCB CONGENER #28 (CL3), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
50948	PCB CONGENER #52 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.83	0.83	0.83	0.83	0.	0.	**	**	**	**
50949	PCB CONGENER #44 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50950	PCB CONGENER #66 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50951	PCB CONGENER #77/110 (CL4/CLS) DRY WGT,SED UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
50953	PCB CONGENER #118 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
50955	PCB CONGENER #105 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50958	PCB CONGENER #187 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
50959	PCB CONGENER #128 (CL6), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
50960	PCB CONGENER #180 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
50963	PCB CONGENER #206 (CL9), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
50964	PCB CONGENER #209 (CL10),DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
50966	GAMMA-CHLORDANE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	0.44	0.44	0.44	0.44	0.	0.	**	**	**	**
61080	1,6,7-TRIMETHYLNAPHTHALENE SEDIMENT DRY WT UG/KG	09/02/97-09/02/97	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
61098	C4-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	16.2	16.2	16.2	16.2	0.	0.	**	**	**	**
61100	C3-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	19.7	19.7	19.7	19.7	0.	0.	**	**	**	**
61101	C2-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	13.	13.	13.	13.	0.	0.	**	**	**	**
61104	C1-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	4.5	4.5	4.5	4.5	0.	0.	**	**	**	**
61105	C1-FLUORANTHENES+PYRENES SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
61115	PCB CONGENER #169 (C16) SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61160	PCB CONGENER #126 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
61161	PCB CONGENER # 77 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61197	TRICHLOROBIPHENYL,2,3',5,-,(PCB#26)DRY WT BOT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61239	PAHS WITHOUT PERYLENE,TOTAL,SEDIMENT,DRY WT UG/KG	09/02/97-09/02/97	1	254.	254.	254.	254.	0.	0.	**	**	**	**
61261	PCB CONGENER #8/5, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61262	PCB CONGENER #195/208, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61263	PCB CONGENER #18/17, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
61264	PCB CONGENER #170/190, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.79	0.79	0.79	0.79	0.	0.	**	**	**	**
61265	PCB CONGENER #153/132, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**
61266	PCB CONGENER #138/160, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
61268	PCB CONGENER #101/90, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
61285	1-METHYLNAPHTHALENE, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.45	0.45	0.45	0.45	0.	0.	**	**	**	**
61783	PCB CONGERNER #80/95 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
61784	PCB CONGERNER #61/74 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61785	PCB CONGERNER #41/64 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61786	PCB CONGERNER #37/42/59 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61787	PCB CONGERNER #47/75 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61788	PCB CONGERNER #22/51 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61789	PCB CONGERNER #20/33 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61794	POLYAMMATIC HYDROCARBON TOT W/ PERYLN SED DRYUG/KG	09/02/97-09/02/97	1	258.3	258.3	258.3	258.3	0.	0.	**	**	**	**
61795	PCB CONGERNER #196/203 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61796	PCB CONGERNER #153/173/201 SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61797	PCB CONGERNER #171/202 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
61798	PCB CONGERNER #176/137 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61799	PCB CONGERNER #141/179 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
61800	PCB CONGERNER #123/149 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
61801	PCB CONGERNER #87/115 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
61802	PCB CONGERNER #56/60 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**
61803	PCB CONGERNER #55/91 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61804	PCB CONGERNER #16/32 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.67	0.67	0.67	0.67	0.	0.	**	**	**	**
61805	PCB CONGERNER #24/27 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61806	PCB CONGERNER #7/9 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61807	PCB CONGERNER #194 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61808	PCB CONGERNER #199 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
61809	PCB CONGERNER #200 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61810	PCB CONGERNER #197 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61811	PCB CONGERNER #172 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61812	PCB CONGERNER #156 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
61813	PCB CONGERNER #177 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0048

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
61814	PCB CONGERNER #174 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61815	PCB CONGERNER #185 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61816	PCB CONGERNER #167 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61817	PCB CONGERNER #183 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
61818	PCB CONGERNER #166 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61819	PCB CONGERNER #178 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61820	PCB CONGERNER #129 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61821	PCB CONGERNER #158 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61822	PCB CONGERNER #146 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61823	PCB CONGERNER #114 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61824	PCB CONGERNER #135 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
61825	PCB CONGERNER #151 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
61826	PCB CONGERNER #82 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61827	PCB CONGERNER #136 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61828	PCB CONGERNER #85 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
61829	PCB CONGERNER #97 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61830	PCB CONGERNER #83 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61831	PCB CONGERNER #99 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.34	0.34	0.34	0.34	0.	0.	**	**	**	**
61832	PCB CONGERNER #92 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61833	PCB CONGERNER #70 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61834	PCB CONGERNER #67 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61835	PCB CONGERNER #40 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
61836	PCB CONGERNER #72 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61837	PCB CONGERNER #48 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61838	PCB CONGERNER #49 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
61839	PCB CONGERNER #69 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**
61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61846	4,4'DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**
61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
75042	HEXAChLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
75558	BIPHENYL SEDIMENT,DRY WGT UG/KG	09/02/97-09/02/97	1	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
75714	DIBENZO(BD)THIOPHENE(DIPHEN*)SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	1	0.36	0.36	0.36	0.36	0.	0.	**	**	**	**
78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**
79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	1.57	1.57	1.57	1.57	0.	0.	**	**	**	**
81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	1	70.5	70.5	70.5	70.5	70.5	0.	0.	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0049

NPS Station ID: RICH0049

Location: UNNAMED STREAM DOWNSTREAM OF ALL SEEPS

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF; VIRGINIA 7.5' SERIES (TOPOGRAPHIC) QUADRANGLE. STATION SS-03 WAS AT AN UNNAMED STREAM NORTH OF FORT DARLING SANITARY LANDFILL DOWNSTREAM OF ALL SEEPS AND APPROXIMATELY 200 YARDS WEST OF THE DISCHARGE POINT TO THE JAMES RIVER INSIDE OF RICHMOND NATIONAL BATTLEFIELD PARK (RICH). THE STREAM WAS SAMPLED AS PART OF A SITE INVESTIGATION OF FORT DARLING LANDFILL BY DRAPER ADEN ASSOCIATES FOR CHESTERFIELD COUNTY. SAMPLES WERE COLLECTED AT A LEACHATE SEEP AND THREE SITES ALONG AN UNNAMED CREEK AT THE NORTHERN BORDER OF THE LANDFILL. THE STREAM AT STATION SS-03 WAS ORANGE IN COLOR WITH A SURFACE FILM. DATA ARE FROM MISCELLANEOUS LABORATORY SHEETS AND A MEMORANDUM FROM DRAPER ADEN ASSOCIATES. FOR MORE INFORMATION CONTACT RICH'S CHIEF OF RESOURCES AT 3215 EAST BROAD STREET; RICHMOND VA 23223 (TEL. 804-226-1981). DATA WERE PROCESSED AND UPLOADED TO STORET BY RYAN SHY; NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525 (TEL. 970-225-3516).

LAT/LON: 37.420431/ -77.421581

Agency: 11NPSWRD

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): RICH\_DAA\_SS-03

Within Park Boundary: Yes

Date Created: 07/03/99

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

## Parameter Inventory for Station: RICH0049

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00997 ARSENIC, INORGANIC TOT (UG/L AS AS)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01007 BARIUM, TOTAL (UG/L AS BA)	05/03/96-05/03/96	1	167.	167.	167.	167.	0.	0.	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	05/03/96-05/03/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	05/03/96-05/03/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01037 COBALT, TOTAL (UG/L AS CO)	05/03/96-05/03/96	1	25.	25.	25.	25.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	05/03/96-05/03/96	1	14.	14.	14.	14.	0.	0.	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01059 THALLIUM, TOTAL (UG/L AS TL)	05/03/96-05/03/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	05/03/96-05/03/96	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01077 SILVER, TOTAL (UG/L AS AG)	05/03/96-05/03/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01087 VANADIUM, TOTAL (UG/L AS V)	05/03/96-05/03/96	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	05/03/96-05/03/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01097 ANTIMONY, TOTAL (UG/L AS SB)	05/03/96-05/03/96	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
01102 TIN, TOTAL (UG/L AS SN)	05/03/96-05/03/96	1 ##	5000.	5000.	5000.	5000.	0.	0.	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	05/03/96-05/03/96	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
32101 BROMODICHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32102 CARBON TETRACHLORIDE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32103 1,2-DICHLOROETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0049

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
32104	BROMOFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
32106	CHLOROFORM,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34200	ACENAPHTHYLENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34205	ACENAPHTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34210	ACROLEIN TOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
34215	ACRYLONITRILE TOTWUG/L	05/03/96-05/03/96	1##	100.	100.	100.	100.	0.	0.	**	**	**	**
34220	ANTHRACENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34273	BIS (2-CHLOROETHYL) ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34292	N-BUTYL BENZYL PHthalate,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34311	CHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34320	CHRYSENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34336	DIETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34341	DIMETHYL PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34376	FLUORANTHENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34381	FLUORENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34386	HEXACHLOROCYCLOPENTADIENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34396	HEXAChLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34408	ISOPHORONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34418	METHYL CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34423	METHYLENE CHLORIDE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34428	N-NITROSOdi-N-PROPYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34433	N-NITROSOdIPHENYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34438	N-NITROSODIMETHYLAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34447	NITROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34452	PARACHLOROMETA CRESOL TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
34461	PHENANTHRENE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
34469	PYRENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34475	TETRAChLORoETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34488	TRICHLOROFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34501	1,1-DICHLORoETHYLENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34511	1,1,2-TRICHLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34516	1,1,2,2-TETRAChLORoETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34546	TRANS-1,2-DICHLORoETHENE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34556	1,2,5,6-DIBENZANThRACENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34571	1,4-DICHLOROBENZENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34581	2-CHLORONAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34586	2-CHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34591	2-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34596	Di-N-octyl PHTHALATE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34601	2,4-DICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34606	2,4-DIMETHYLPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34611	2,4-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34616	2,4-DINITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
34621	2,4,6-TRICHLOROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34626	2,6-DINITROTOLUENE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34631	3,3'-DICHLOROBENZIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
34636	4-BROMOPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34641	4-CHLOROPHENYL PHENYL ETHER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34646	4-NITROPHENOL TOTWUG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
34696	NAPHTHALENE TOTWUG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**

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### Parameter Inventory for Station: RICH0049

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
38462	FAMPHUR WATER, TOTUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
39080	PRONAMIDE IN WATER, TOTALUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39100	BIS(2-ETHYLHEXYL) PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1	11.	11.	11.	11.	0.	0.	**	**	**	**
39110	DI-N-BUTYL PHTHALATE,WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	1.	1.	1.	1.	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39430	ISODRIN IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
39460	CHLOROBENZILATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
45007	TOLUIDINE WH WAT UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
45622	DINITROBENZENE, M-, WATER, WHOLE UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
46313	PHORATE IN WHOLE WATER SAMPLE (UG/L)	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
61290	BENZENE, TOTAL WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
61291	TOLUENE, TOTAL WATER UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	05/03/96-05/03/96	1##	1.	1.	1.	1.	0.	0.	**	**	**	**
73529	BENZENAMINE, 4-CHLORO- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73540	CARBMO THACID,(1METHETH),S-(2,3DIDL2PROP)ESTOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73559	BENZOAEANTHRACENE, 7,12-DIMETHYL- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73571	METHANESULFONIC ACID, ETHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73576	1-PROPENE, 1,1,2,3,3,3-HEXACHLORO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73582	1,3-HBENZODIOXOLE, 5-(1-PROPYNYL)- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73589	1,2-ETHIDIAM,N,N-DI-N'-2-PYRID-N'-2-THNYMTHTTOTWUG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
73591	BENZOÉACEANTHRYLENE, 1,2-DIHYDRO-3-METHYLTTOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73595	METHANESULFONIC ACID, METHYL ESTER TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73599	1,4-NAPHTHALENEDIONE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73600	1-NAPHTHALENAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73605	BENZENAMINE, 4-NITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73613	ETHANAMINE, N-METHYL-N-NITROSO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73619	1-NITROSOPIPERIDINE TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73626	ACETAMIDE, N-(4-ETHOXYPHENYL)- TOTWUG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
73628	1,4-BENZENEDIAMINE TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
73653	BENZENE, 1,3,5-TRINITRO- TOTWUG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
76997	METHYL CYANIDE (ACETONITRILE) WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77007	PROPANENITRILE(PROPIONITRILE,ETHY*WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	75.	0.	0.	**	**	**	**
77033	ISOBUTYL ALCOHOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
77128	STYRENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77142	O-TOLUIDINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77146	P-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77151	M-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77152	O-CRESOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77268	1,4-DICHLOROBUTENE-2 WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77416	2-METHYLNAPHTHALENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	75.	75.	75.	75.	0.	0.	**	**	**	**
77545	SAFROLE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
77579	DIPHENYLAMINE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77581	P-AMINOBIPHENYL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
77596	METHYLENE BROMIDE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77687	2,4,5-TRICHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77734	1,2,4,5-TETRACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
77770	2,3,4,6-TETRACHLOROPHENOL WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0049

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
77793	PENTACHLOROBENZENE WHOLE WATER,UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78142	ORTHO NITROANILINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
78200	N-NITROSODIETHYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
78206	N-NITROSPYRROLIDINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	20.	20.	20.	20.	0.	0.	**	**	**	**
78207	N-NITROSODIBUTYLAMINE IN WHOLE WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
78300	3-NITROANILINE, TOTAL, IN WATER UG/L	05/03/96-05/03/96	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
81281	KEPONE(C10CL10O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81302	DIBENZOFURAN(C12H8O) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81309	CARBONDISULFIDE(CS2) WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81520	CHLOROPRENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
81551	XYLENE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81553	ACETOPHENONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81596	METHYL-ISOBUTYL KETONE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	05/03/96-05/03/96	1##	15.	15.	15.	15.	0.	0.	**	**	**	**
81888	DISULFOTIN IN WHOLE WATER SAMPLE UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82191	2-NAPHTYLAMINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
82204	2-ACETYL AMINO FLUORENE, TOTAL, WATER UG/L	05/03/96-05/03/96	1##	10.	10.	10.	10.	0.	0.	**	**	**	**
82213	DIMETHYL BENZIDINE IN WATER UG/L	05/03/96-05/03/96	1##	5.	5.	5.	5.	0.	0.	**	**	**	**

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### EPA Water Quality Criteria Analysis for Station: RICH0049

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard		Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
				Obs	Exceed		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Drinking Water	1300.	1	0	0.00							1	0	0.00			
		Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0&	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0049

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
							Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	Obs	Exceed Prop.	Obs
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	1	0	0.00					1	0	0.00		
		Drinking Water	100.	1	0	0.00					1	0	0.00		
34205	ACENAPHTHENE, TOTAL	Fresh Acute	1700.	1	0	0.00					1	0	0.00		
34210	ACROLEIN, TOTAL	Fresh Acute	68.	1	0	0.00					1	0	0.00		
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00					1	0	0.00		
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00					1	0	0.00		
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00					1	0	0.00		
		Drinking Water	700.	1	0	0.00					1	0	0.00		
34376	FLUORANTHENE, TOTAL	Fresh Acute	3980.	1	0	0.00					1	0	0.00		
34386	HEXACHLOROCYCLOPENTADIENE, TOTAL	Fresh Acute	7.	1	0	0.00					1	0	0.00		
		Drinking Water	50.	1	0	0.00					1	0	0.00		
34396	HEXAChLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00					1	0	0.00		
34408	ISOPHORONE, TOTAL	Fresh Acute	117000.	1	0	0.00					1	0	0.00		
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34447	NITROBENZENE, TOTAL	Fresh Acute	27000.	1	0	0.00					1	0	0.00		
34452	PARACHLOROMETA CRESOL, TOTAL	Fresh Acute	30.	1	0	0.00					1	0	0.00		
34461	PHENANTHRENE, TOTAL	Fresh Acute	30.	1	0	0.00					1	0	0.00		
34475	TETRAChLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00					1	0	0.00		
		Drinking Water	5.	1	0	0.00					1	0	0.00		
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00					1	0	0.00		
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00					1	0	0.00		
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00					1	0	0.00		
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00					1	0	0.00		
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00					1	0	0.00		
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00					1	0	0.00		
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00					1	0	0.00		
34586	2-CHLOROPHENOL, TOTAL	Fresh Acute	4380.	1	0	0.00					1	0	0.00		
34601	2,4-DICHLOROPHENOL, TOTAL	Fresh Acute	2020.	1	0	0.00					1	0	0.00		
34606	2,4-DIMETHYLPHENOL, TOTAL	Fresh Acute	2120.	1	0	0.00					1	0	0.00		
34611	2,4-DINITROTOLUENE, TOTAL	Fresh Acute	330.	1	0	0.00					1	0	0.00		
34694	PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	Fresh Acute	10200.	1	0	0.00					1	0	0.00		
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00					1	0	0.00		
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	0 &	0	0.00									
		Drinking Water	1.	0 &	0	0.00									
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	Fresh Acute	2000.	1	0	0.00					1	0	0.00		
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	6.	1	1	1.00					1	1	1.00		
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00					1	0	0.00		
39702	HEXAChLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	45000.	1	0	0.00					1	0	0.00		
71900	MERCURY, TOTAL	Drinking Water	5.	1	0	0.00					1	0	0.00		
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Fresh Acute	90.	1	0	0.00					1	0	0.00		
77128	STYRENE, WHOLE WATER	Drinking Water	2.	1	0	0.00					1	0	0.00		
77687	2,4,5-TRICHLOROPHENOL, WHOLE WATER	Drinking Water	100.	1	0	0.00					1	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0050

NPS Station ID: RICH0050

Location: 51H 6

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: C

Minor Basin:

RF1 Index: 02080206

RF3 Index: 02080206043600.00

Description:

LAT/LON: 37.421116/ -77.425281

Agency: 112WRD

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): 372516077253101

Within Park Boundary: Yes

Date Created: 04/14/78

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 0.000

RF3 Mile Point: 0.04

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.22

On/Off RF1:

On/Off RF3:

## Parameter Inventory for Station: RICH0050

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/30/76-07/25/78	2	15.5	15.5	16.	15.	0.5	0.707	**	**	**	**
00070 TURBIDITY, (JACKSON CANDLE UNITS)	11/30/76-07/25/78	2	47.5	47.5	70.	25.	1012.5	31.82	**	**	**	**
00080 COLOR (PLATINUM-COBALT UNITS)	11/30/76-07/25/78	2	50.	50.	50.	0.	0.	0.	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/30/76-07/25/78	2	236.5	236.5	315.	158.	12324.5	111.016	**	**	**	**
00400 PH (STANDARD UNITS)	11/30/76-11/30/76	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00400 CONVERTED PH (STANDARD UNITS)	11/30/76-11/30/76	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/30/76-11/30/76	1	2.512	2.512	2.512	2.512	0.	0.	**	**	**	**
00405 CARBON DIOXIDE (MG/L AS CO2)	11/30/76-11/30/76	1	149.	149.	149.	149.	0.	0.	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	11/30/76-07/25/78	2	49.	49.	68.	30.	722.	26.87	**	**	**	**
00440 BICARBONATE ION (MG/L AS HC03)	11/30/76-07/25/78	2	60.	60.	83.	37.	1058.	32.527	**	**	**	**
00445 CARBONATE ION (MG/L AS CO3)	11/30/76-11/30/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/30/76-07/25/78	2##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	11/30/76-07/25/78	2	0.205	0.205	0.4	0.01	0.076	0.276	**	**	**	**
00631 NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/30/76-07/25/78	2	0.205	0.205	0.4	0.01	0.076	0.276	**	**	**	**
00660 PHOSPHATE, ORTHO (MG/L AS PO4)	11/30/76-07/25/78	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/30/76-07/25/78	2##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	11/30/76-07/25/78	2	49.	49.	67.	31.	648.	25.456	**	**	**	**
00902 HARDNESS, NON-CARBONATE (MG/L AS CACO3)	11/30/76-07/25/78	2	0.5	0.5	1.	0.	0.5	0.707	**	**	**	**
00915 CALCIUM, DISSOLVED (MG/L AS CA)	11/30/76-07/25/78	2	8.5	8.5	11.	6.	12.5	3.536	**	**	**	**
00925 MAGNESIUM, DISSOLVED (MG/L AS MG)	11/30/76-07/25/78	2	6.8	6.8	9.7	3.9	16.82	4.101	**	**	**	**
00930 SODIUM, DISSOLVED (MG/L AS NA)	11/30/76-07/25/78	2	24.	24.	33.	15.	162.	12.728	**	**	**	**
00931 SODIUM ADSORPTION RATIO	11/30/76-07/25/78	2	1.5	1.5	1.8	1.2	0.18	0.424	**	**	**	**
00932 SODIUM, PERCENT	11/30/76-07/25/78	2	47.	47.	48.	46.	2.	1.414	**	**	**	**
00935 POTASSIUM, DISSOLVED (MG/L AS K)	11/30/76-07/25/78	2	7.2	7.2	8.6	5.8	3.92	1.98	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	11/30/76-07/25/78	2	39.5	39.5	55.	24.	480.5	21.92	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO4)	11/30/76-07/25/78	2	6.	6.	6.	6.	0.	0.	**	**	**	**
00950 FLUORIDE, DISSOLVED (MG/L AS F)	11/30/76-07/25/78	2	0.15	0.15	0.2	0.1	0.005	0.071	**	**	**	**
00955 SILICA, DISSOLVED (MG/L AS SI02)	11/30/76-07/25/78	2	19.	19.	20.	18.	2.	1.414	**	**	**	**
01046 IRON, DISSOLVED (UG/L AS FE)	11/30/76-07/25/78	2	870.	870.	1700.	40.	1377800.	1173.797	**	**	**	**
70300 RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), MG/L	11/30/76-07/25/78	2	145.5	145.5	187.	104.	3444.5	58.69	**	**	**	**
70301 SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	11/30/76-07/25/78	2	142.	142.	184.	100.	3528.	59.397	**	**	**	**
70303 SOLIDS, DISSOLVED-TONS PER ACRE-FT	11/30/76-07/25/78	2	0.195	0.195	0.25	0.14	0.006	0.078	**	**	**	**
71851 NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	11/30/76-07/25/78	2	0.9	0.9	1.8	0.	1.62	1.273	**	**	**	**
71856 NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	11/30/76-07/25/78	2	0.	0.	0.	0.	0.	0.	**	**	**	**
72008 DEPTH, TOTAL OF WELL (FT BELOW LAND SURFACE DATUM)	11/30/76-11/30/76	1	205.	205.	205.	205.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0050

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	2	1	0.50	1	1	1.00	1	0	0.00			
00400 PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00			
	Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00			
00613 NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00			
00618 NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	2	0	0.00	1	0	0.00	1	0	0.00			
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	2	0	0.00	1	0	0.00	1	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	2	0	0.00	1	0	0.00	1	0	0.00			
	Drinking Water	250.	2	0	0.00	1	0	0.00	1	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00	1	0	0.00	1	0	0.00			
00950 FLUORIDE, DISSOLVED AS F	Drinking Water	4.	2	0	0.00	1	0	0.00	1	0	0.00			
71851 NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	2	0	0.00	1	0	0.00	1	0	0.00			
71856 NITRITE NITROGEN, DISSOLVED (AS NO2)	Drinking Water	3.3	2	0	0.00	1	0	0.00	1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0051

NPS Station ID: RICH0051	LAT/LON: 37.421199/ -77.420837	Agency: 11NPSWRD	Date Created: 07/12/97
Location: LANDFILL ASSESSMENT FOR RICH STATION FD-05		FIPS State/County: 51041 VIRGINIA/CHESTERFIELD	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): RICH_FD_05	
RMI-Indexes:		Within Park Boundary: Yes	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: JAMES RIVER		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:

Description:  
 THE SITE IS LOCATED ON THE DREWRY'S BLUFF VIRGINIA-CHESTERFIELD CO. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS ON THE SOUTH-EAST BORDER OF THE FORT DARLING UNIT OF THE RICHMOND NATIONAL BATTLE- FIELD PARK. THE SITE IS LOCATED APPROXIMATELY 70 METERS ABOVE THE CONFLUENCE WITH THE JAMES RIVER IN AN UNNAMED TRIBUTARY. THE STUDY MEASURED POSSIBLE CONTAMINATION OF THE TRIBUTARY TO THE JAMES RIVER. THE LEACHATE WAS PRESUMED TO BE FROM A LANDFILL ADJACENT TO THE PARK. THE LANDFILL CLOSED IN 1972 AND WAS COVERED WITH TOPSOIL; CONTOURED AND REVEGETATED. AT THE TIME OF THE STUDY THERE WAS VISIBLE SUBLISSION IN THE LANDFILL'S EARTHEN CAP AND AN ORANGE-REDDISH LEACHATE STAIN IN THE CHANNEL. THE DATA IS FROM A STUDY BY DEL NIMMO ET AL. "ASSESSMENT OF AN URBAN LANDFILL ON TRIBUTARY WATER QUALITY." FOR MORE INFORMATION CONTACT MIKE BRENNAN RESOURCES MANAGEMENT SPECIALIST RICHMOND NATIONAL BATTLEFIELD PARK. PH.804-795-5019. DATA PROCESSED AND UPLOADED TO STORET BY CURTIS COOPER NPS-WRD FT COLLINS CO 80525. PH.970-225-3516.

## Parameter Inventory for Station: RICH0051

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	1	2000.	2000.	2000.	2000.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00406 PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	1	5.4	5.4	5.4	5.4	0.	0.	**	**	**	**
00406 CONVERTED PH, FIELD, STANDARD UNITS	06/16/89-06/16/89	1	5.4	5.4	5.4	5.4	0.	0.	**	**	**	**
00406 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/16/89-06/16/89	1	3.981	3.981	3.981	3.981	0.	0.	**	**	**	**
01005 BARIUM, DISSOLVED (UG/L AS BA)	07/24/91-07/24/91	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01025 CADMIUM, DISSOLVED (UG/L AS CD)	07/24/91-07/24/91	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01030 CHROMIUM, DISSOLVED (UG/L AS CR)	07/24/91-07/24/91	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040 COPPER, DISSOLVED (UG/L AS CU)	07/24/91-07/24/91	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01046 IRON, DISSOLVED (UG/L AS FE)	07/24/91-07/24/91	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01049 LEAD, DISSOLVED (UG/L AS PB)	07/24/91-07/24/91	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
01056 MANGANESE, DISSOLVED (UG/L AS MN)	07/24/91-07/24/91	1	2710.	2710.	2710.	2710.	0.	0.	**	**	**	**
01060 MOLYBDENUM, DISSOLVED (UG/L AS MO)	07/24/91-07/24/91	1	20.	20.	20.	20.	0.	0.	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	07/24/91-07/24/91	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01090 ZINC, DISSOLVED (UG/L AS ZN)	07/24/91-07/24/91	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01106 ALUMINUM, DISSOLVED (UG/L AS AL)	07/24/91-07/24/91	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
50119 ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	1	28400.	28400.	28400.	28400.	0.	0.	**	**	**	**
50122 BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	132.	132.	132.	132.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0051

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	10.6	10.6	10.6	10.6	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	10.	10.	10.	10.	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	51600.	51600.	51600.	51600.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	120.	120.	120.	120.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	12.	12.	12.	12.	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	17.	17.	17.	17.	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	42.	42.	42.	42.	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	07/24/91-07/24/91	1	4.	4.	4.	4.	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/24/91-07/24/91	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0051

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00						1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00						1	0	0.00			
		Other-Lo Lim.	6.5	1	1	1.00						1	1	1.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00	1	0	0.00								
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	0 &	0	0.00											
01030	CHROMIUM, DISSOLVED	Drinking Water	5.	0 &	0	0.00											
01040	COPPER, DISSOLVED	Drinking Water	100.	1	0	0.00	1	0	0.00								
01049	LEAD, DISSOLVED	Fresh Acute	18.	1	0	0.00	1	0	0.00								
		Drinking Water	1300.	1	0	0.00	1	0	0.00								
01065	NICKEL, DISSOLVED	Fresh Acute	82.	1	0	0.00	1	0	0.00								
01090	ZINC, DISSOLVED	Drinking Water	15.	0 &	0	0.00											
71890	MERCURY, DISSOLVED	Fresh Acute	1400.	1	0	0.00	1	0	0.00								
		Drinking Water	100.	1	0	0.00	1	0	0.00								
		Fresh Acute	120.	1	0	0.00	1	0	0.00								
		Drinking Water	5000.	1	0	0.00	1	0	0.00								
		Fresh Acute	2.4	1	1	1.00	1	1	1.00								
		Drinking Water	2.	1	1	1.00	1	1	1.00								

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0052

NPS Station ID: RICH0052  
 Location: UNNAMED TRIBUTARY OF JAMES RIVER  
 Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:  
 RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF VA 7.5 MINUTE SERIES PARK (RICH) BOUNDARIES. THE SITE IS AT AN UNNAMED TRIBUTARY OF 2 SEPTEMBER 1997 AS PART OF A BASELINE MONITORING PROJECT TO ASSESS THE IMPACT OF A NEARBY COUNTY LANDFILL (ACQUIRED BY RICH DURING THE 1970'S) ON THE TRIBUTARY. THE TRIBUTARY'S SOURCE COLLECTS RUNOFF FROM AN AREA NORTHEAST OF THE PARK THAT INCLUDES ASPHALT STORAGE CONTAINERS. DATA ARE FROM AN ANALYTICAL REPORT TITLED "DREWRY'S BLUFF PROJECT."

LAT/LON: 37.421254/ -77.423837

Agency: 11NPSWRD  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): RICH\_NPS\_5  
 Within Park Boundary: Yes

Date Created: 07/17/99

Depth of Water: 0  
 Elevation: 0

RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

(TOPOGRAPHIC) QUADRANGLE AND IS INSIDE THE RICHMOND NATIONAL BATTLEFIELD JAMES RIVER NEAR DREWRY'S BLUFF. DATA WERE COLLECTED ON ANALYTICAL REPORT NO. 7C480-A; BY TEXAS A&M UNIVERSITY'S GEOCHEMICAL AND ENVIRONMENTAL RESEARCH GROUP. FOR MORE INFORMATION CONTACT THE CHIEF OF RESOURCES AT RICH; 3215 EAST BROAD STREET; RICHMOND VA 23223; TEL(804)226-1981. DATA WERE PROCESSED AND UPLOADED TO STORET BY SHAWNDRAY MAWHORTER; NPS-WRD; 1201 OAKRIDGE DRIVE SUITE 250; FORT COLLINS CO 80528; TEL(970)225-3516.

## Parameter Inventory for Station: RICH0052

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00924 MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	1	791.4	791.4	791.4	791.4	0.	0.	**	**	**	**
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	1	6.83	6.83	6.83	6.83	0.	0.	**	**	**	**
01008 BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	1	50.49	50.49	50.49	50.49	0.	0.	**	**	**	**
01013 BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	1	1.56	1.56	1.56	1.56	0.	0.	**	**	**	**
01018 IRON,TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	1	12769.9	12769.9	12769.9	12769.9	0.	0.	**	**	**	**
01023 BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	1##	2.1	2.1	2.1	2.1	0.	0.	**	**	**	**
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1##	0.085	0.085	0.085	0.085	0.	0.	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	16.73	16.73	16.73	16.73	0.	0.	**	**	**	**
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	1	9.1	9.1	9.1	9.1	0.	0.	**	**	**	**
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	1	38.74	38.74	38.74	38.74	0.	0.	**	**	**	**
01053 MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	1	52.02	52.02	52.02	52.02	0.	0.	**	**	**	**
01063 MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	1##	0.175	0.175	0.175	0.175	0.	0.	**	**	**	**
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	9.46	9.46	9.46	9.46	0.	0.	**	**	**	**
01083 STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	1##	1.955	1.955	1.955	1.955	0.	0.	**	**	**	**
01088 VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	1	21.85	21.85	21.85	21.85	0.	0.	**	**	**	**
01108 ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	1	8264.3	8264.3	8264.3	8264.3	0.	0.	**	**	**	**
01148 SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
01157 ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	1	58.84	58.84	58.84	58.84	0.	0.	**	**	**	**
34203 ACENAPHTHYLENE DRY WGTBOTUG/KG	09/02/97-09/02/97	1	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0052

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	5.5	5.5	5.5	5.5	0.	0.	**	**	**
34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	9.2	9.2	9.2	9.2	0.	0.	**	**	**
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	46.	46.	46.	46.	0.	0.	**	**	**
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	1	4.4	4.4	4.4	4.4	0.	0.	**	**	**
34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	31.4	31.4	31.4	31.4	0.	0.	**	**	**
34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
34262	DELTA BENZENE HEXACHLORIDE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
34323	CHRYSENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	33.	33.	33.	33.	0.	0.	**	**	**
34359	ENDOSULFAN, BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
34379	FLUORANTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	34.	34.	34.	34.	0.	0.	**	**	**
34384	FLUORENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	6.4	6.4	6.4	6.4	0.	0.	**	**	**
34406	INDENO (1,2,3-CD) PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	18.3	18.3	18.3	18.3	0.	0.	**	**	**
34445	NAPHTHALENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	11.	11.	11.	11.	0.	0.	**	**	**
34464	PHENANTHRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	16.3	16.3	16.3	16.3	0.	0.	**	**	**
34472	PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	35.3	35.3	35.3	35.3	0.	0.	**	**	**
34524	BENZO(GH)PERYLENE,1,2-BENZOPERYLENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	20.9	20.9	20.9	20.9	0.	0.	**	**	**
34529	BENZO(A)ANTHRACENE,1,2-BENZANTHRACENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	34.1	34.1	34.1	34.1	0.	0.	**	**	**
39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	1	4.98	4.98	4.98	4.98	0.	0.	**	**	**
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	1	0.36	0.36	0.36	0.36	0.	0.	**	**	**
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	1.97	1.97	1.97	1.97	0.	0.	**	**	**
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	1.56	1.56	1.56	1.56	0.	0.	**	**	**
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.01	0.01	0.01	0.01	0.	0.	**	**	**
39333	ALDRIN IN BOTTOM DEPOS (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	1	0.63	0.63	0.63	0.63	0.	0.	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	1	0.24	0.24	0.24	0.24	0.	0.	**	**	**
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**
45095	C2 ALKYL DIBENZOTHIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	1	21.4	21.4	21.4	21.4	0.	0.	**	**	**
49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**
49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	32.5	32.5	32.5	32.5	0.	0.	**	**	**
49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	13.1	13.1	13.1	13.1	0.	0.	**	**	**
49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	27.8	27.8	27.8	27.8	0.	0.	**	**	**
49761	C3 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	42.4	42.4	42.4	42.4	0.	0.	**	**	**
49767	C1 ALKYL DIBENZOTHIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**
49769	C3 ALKYL DIBENZOTHIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	26.9	26.9	26.9	26.9	0.	0.	**	**	**
49782	NAPHTHALENE, C1 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	12.4	12.4	12.4	12.4	0.	0.	**	**	**
49783	NAPHTHALENE, C2 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	14.	14.	14.	14.	0.	0.	**	**	**
49784	NAPHTHALENE, C3 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	40.6	40.6	40.6	40.6	0.	0.	**	**	**
49785	NAPHTHALENE, C4 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	61.7	61.7	61.7	61.7	0.	0.	**	**	**
49805	C1 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	70.4	70.4	70.4	70.4	0.	0.	**	**	**
49806	C2 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	102.4	102.4	102.4	102.4	0.	0.	**	**	**
49807	C3 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	26.4	26.4	26.4	26.4	0.	0.	**	**	**
49808	C4 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**
50590	PCB CONGENER IUPAC#107, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.31	0.31	0.31	0.31	0.	0.	**	**	**
50592	PCB CONGENER IUPAC#207, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.22	0.22	0.22	0.22	0.	0.	**	**	**
50595	PCB CONGENER IUPAC#25, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50596	PCB CONGENER IUPAC#29, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50601	PCB CONGENER IUPAC#53, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**
50602	PCB CONGENER IUPAC#63, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50603	PCB CONGENER IUPAC#81, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50604	PCB CONGENER IUPAC#84, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50605	PCB CONGENER IUPAC#1, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50607	PCB CONGENER IUPAC#205, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**
50609	PCB CONGENER IUPAC#193, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50610	PCB CONGENER IUPAC#191, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50611	PCB CONGENER IUPAC#189, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**
50612	PCB CONGENER IUPAC#175, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50614	PCB CONGENER IUPAC#130, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**
50615	PCB CONGENER IUPAC#119, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.13	1.13	1.13	1.13	1.13	0.	0.	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0052

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50784	ALPHA-CHLORDANE SEDIMENT,DRY WT,BOTTOM DEP UG/KG	09/02/97-09/02/97	1	20.4	20.4	20.4	20.4	0.	0.	**	**	**	**
50910	DIBENZO(A,H)ANTHRACENE SED DRY WEIGHT BOTTOM UG/KG	09/02/97-09/02/97	1	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
50942	1-METHYLPHENANTHRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
50943	2,6-DIMETHYLNAPHTHALENE, DRY WEIGHT, SEDIMENTUG/KG	09/02/97-09/02/97	1	4.2	4.2	4.2	4.2	0.	0.	**	**	**	**
50947	PCB CONGENER #28 (CL3), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	1.23	1.23	1.23	1.23	0.	0.	**	**	**	**
50948	PCB CONGENER #52 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	1.51	1.51	1.51	1.51	0.	0.	**	**	**	**
50949	PCB CONGENER #44 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	1.77	1.77	1.77	1.77	0.	0.	**	**	**	**
50950	PCB CONGENER #66 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50951	PCB CONGENER #77/110 (CL4/CLS) DRY WGT,SED UG/KG	09/02/97-09/02/97	1	2.38	2.38	2.38	2.38	0.	0.	**	**	**	**
50953	PCB CONGENER #118 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	1.46	1.46	1.46	1.46	0.	0.	**	**	**	**
50955	PCB CONGENER #105 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
50958	PCB CONGENER #187 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.28	0.28	0.28	0.28	0.	0.	**	**	**	**
50959	PCB CONGENER #128 (CL6), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
50960	PCB CONGENER #180 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.43	0.43	0.43	0.43	0.	0.	**	**	**	**
50963	PCB CONGENER #206 (CL9), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.24	0.24	0.24	0.24	0.	0.	**	**	**	**
50964	PCB CONGENER #209 (CL10),DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
50966	GAMMA-CHLORDANE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	20.19	20.19	20.19	20.19	0.	0.	**	**	**	**
61080	1,6,7-TRIMETHYLNAPHTHALENE SEDIMENT DRY WT UG/KG	09/02/97-09/02/97	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
61098	C4-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	75.	75.	75.	75.	0.	0.	**	**	**	**
61100	C3-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	42.5	42.5	42.5	42.5	0.	0.	**	**	**	**
61101	C2-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	38.2	38.2	38.2	38.2	0.	0.	**	**	**	**
61104	C1-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	26.9	26.9	26.9	26.9	0.	0.	**	**	**	**
61105	C1-FLUORANTHENES+PYRENES SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	25.1	25.1	25.1	25.1	0.	0.	**	**	**	**
61115	PCB CONGENER #169 (C16) SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61160	PCB CONGENER #126 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61161	PCB CONGENER # 77 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61197	TRICHLOROBIPHENYL,2,3',5,-,(PCB#26)DRY WT BOT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61239	PAHS WITHOUT PERYLENE,TOTAL,SEDIMENT,DRY WT UG/KG	09/02/97-09/02/97	1	1044.	1044.	1044.	1044.	0.	0.	**	**	**	**
61261	PCB CONGENER #8/5, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.65	1.65	1.65	1.65	0.	0.	**	**	**	**
61262	PCB CONGENER #195/208, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61263	PCB CONGENER #18/17, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**
61264	PCB CONGENER #170/190, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.43	0.43	0.43	0.43	0.	0.	**	**	**	**
61265	PCB CONGENER #153/132, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.32	1.32	1.32	1.32	0.	0.	**	**	**	**
61266	PCB CONGENER #138/160, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.24	1.24	1.24	1.24	0.	0.	**	**	**	**
61268	PCB CONGENER #101/90, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	1.31	1.31	1.31	1.31	0.	0.	**	**	**	**
61285	1-METHYLNAPHTHALENE, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	4.7	4.7	4.7	4.7	0.	0.	**	**	**	**
61783	PCB CONGERNER #80/95 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.89	0.89	0.89	0.89	0.	0.	**	**	**	**
61784	PCB CONGERNER #61/74 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.52	0.52	0.52	0.52	0.	0.	**	**	**	**
61785	PCB CONGERNER #41/64 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61786	PCB CONGERNER #37/42/59 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
61787	PCB CONGERNER #47/75 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
61788	PCB CONGERNER #22/51 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61789	PCB CONGERNER #20/33 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61794	POLYAMMATIC HYDROCARBON TOT W/ PERYLN SED DRYUG/KG	09/02/97-09/02/97	1	1051.3	1051.3	1051.3	1051.3	0.	0.	**	**	**	**
61795	PCB CONGERNER #196/203 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61796	PCB CONGERNER #153/173/201 SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
61797	PCB CONGERNER #171/202 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
61798	PCB CONGERNER #176/137 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**
61799	PCB CONGERNER #141/179 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.94	0.94	0.94	0.94	0.	0.	**	**	**	**
61800	PCB CONGERNER #123/149 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.54	0.54	0.54	0.54	0.	0.	**	**	**	**
61801	PCB CONGERNER #87/115 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.36	0.36	0.36	0.36	0.	0.	**	**	**	**
61802	PCB CONGERNER #56/60 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.48	0.48	0.48	0.48	0.	0.	**	**	**	**
61803	PCB CONGERNER #55/91 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	8.48	8.48	8.48	8.48	0.	0.	**	**	**	**
61804	PCB CONGERNER #16/32 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.88	0.88	0.88	0.88	0.	0.	**	**	**	**
61805	PCB CONGERNER #24/27 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61806	PCB CONGERNER #7/9 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.83	0.83	0.83	0.83	0.	0.	**	**	**	**
61807	PCB CONGERNER #194 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.57	0.57	0.57	0.57	0.	0.	**	**	**	**
61808	PCB CONGERNER #199 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.42	0.42	0.42	0.42	0.	0.	**	**	**	**
61809	PCB CONGERNER #200 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61810	PCB CONGERNER #197 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61811	PCB CONGERNER #172 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
61812	PCB CONGERNER #156 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
61813	PCB CONGERNER #177 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0052

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
61814	PCB CONGERNER #174 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.19	0.19	0.19	0.19	0.	0.	**	**	**	**
61815	PCB CONGERNER #185 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61816	PCB CONGERNER #167 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61817	PCB CONGERNER #183 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.24	0.24	0.24	0.24	0.	0.	**	**	**	**
61818	PCB CONGERNER #166 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61819	PCB CONGERNER #178 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61820	PCB CONGERNER #129 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
61821	PCB CONGERNER #158 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
61822	PCB CONGERNER #146 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
61823	PCB CONGERNER #114 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61824	PCB CONGERNER #135 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
61825	PCB CONGERNER #151 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.47	0.47	0.47	0.47	0.	0.	**	**	**	**
61826	PCB CONGERNER #82 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61827	PCB CONGERNER #136 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61828	PCB CONGERNER #85 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
61829	PCB CONGERNER #97 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61830	PCB CONGERNER #83 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
61831	PCB CONGERNER #99 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.98	0.98	0.98	0.98	0.	0.	**	**	**	**
61832	PCB CONGERNER #92 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61833	PCB CONGERNER #70 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61834	PCB CONGERNER #67 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61835	PCB CONGERNER #40 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61836	PCB CONGERNER #72 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61837	PCB CONGERNER #48 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61838	PCB CONGERNER #49 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.89	0.89	0.89	0.89	0.	0.	**	**	**	**
61839	PCB CONGERNER #69 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.33	0.33	0.33	0.33	0.	0.	**	**	**	**
61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	1	5.88	5.88	5.88	5.88	0.	0.	**	**	**	**
61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.48	0.48	0.48	0.48	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	1##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
75042	HEXAChLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.17	0.17	0.17	0.17	0.	0.	**	**	**	**
75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.83	0.83	0.83	0.83	0.	0.	**	**	**	**
75558	BIPHENYL SEDIMENT,DRY WGT UG/KG	09/02/97-09/02/97	1	10.1	10.1	10.1	10.1	0.	0.	**	**	**	**
75714	DIBENZO(BD)THIOPHENE(DIPHEN*)SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	1	2.4	2.4	2.4	2.4	0.	0.	**	**	**	**
78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	1	10.6	10.6	10.6	10.6	0.	0.	**	**	**	**
78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	4.2	4.2	4.2	4.2	0.	0.	**	**	**	**
81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	1	72.8	72.8	72.8	72.8	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0053

NPS Station ID: RICH0053

Location: LANDFILL ASSESSMENT FOR RICH STATION FD-02

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE SITE IS LOCATED ON THE DREWRY'S BLUFF VIRGINIA-CHESTERFIELD CO. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS INSIDE THE FORT DARLING UNIT OF THE RICHMOND NATIONAL BATTLEFIELD PARK. THE SITE IS LOCATED IMMEDIATELY BELOW THE VISITOR FOOT BRIDGE OR APPROXIMATELY 151 METERS FROM THE WESTERN PARK BOUNDARY AND ABOVE THE LEACHATE. THE STUDY MEASURED POSSIBLE CONTAMINATION OF AN UNNAMED TRIBUTARY TO THE JAMES RIVER. THE LEACHATE WAS PRESUMED TO BE FROM A LANDFILL ADJACENT TO THE PARK. THE LANDFILL CLOSED IN 1972 AND WAS COVERED WITH TOPSOIL; CONTOURED AND REVEGETATED. AT THE TIME OF THE STUDY THERE WAS VISIBLE SUBSIDENCE IN THE LANDFILL'S EARTHEN CAP AND REDDISH LEACHATE STAIN IN THE CHANNEL. THE DATA IS FROM A STUDY BY DEL NIMMO ET AL, "ASSESSMENT OF AN URBAN LANDFILL ON TRIBUTARY WATER QUALITY." FOR MORE INFORMATION CONTACT MIKE BRENNAN RESOURCES MANAGEMENT SPECIALIST RICHMOND NATIONAL BATTLEFIELD PARK. PH.804-795-5019. DATA PROCESSED AND UPLOADED TO STORET BY CURTIS COOPER NPS-WRD FT COLLINS CO 80525. PH.970-225-3516.

LAT/LON: 37.421337/ -77.423837

Agency: 11NPSWRD

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): RICH\_FD\_02

Within Park Boundary: Yes

Date Created: 07/12/97

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000  
RF3 Mile Point: 1.58

## Parameter Inventory for Station: RICH0053

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	1	22.	22.	22.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	1	860.	860.	860.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	1	7.	7.	7.	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	1	6.1	6.1	6.1	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	06/16/89-06/16/89	1	6.1	6.1	6.1	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/16/89-06/16/89	1	0.794	0.794	0.794	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	07/24/91-07/24/91	1	20.	20.	20.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	07/24/91-07/24/91	1	10.	10.	10.	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	07/24/91-07/24/91	1##	5.	5.	5.	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	07/24/91-07/24/91	1	90.	90.	90.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	07/24/91-07/24/91	1	2530.	2530.	2530.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	07/24/91-07/24/91	1##	25.	25.	25.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	07/24/91-07/24/91	1	120.	120.	120.	0.	0.	**	**	**	**
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	07/24/91-07/24/91	1	60.	60.	60.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	07/24/91-07/24/91	1##	5.	5.	5.	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	07/24/91-07/24/91	1	30.	30.	30.	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	07/24/91-07/24/91	1	3600.	3600.	3600.	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	1	27600.	27600.	27600.	27600.	0.	**	**	**	**
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	50.	50.	50.	50.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0053

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	3.2	3.2	3.2	3.2	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	6.	6.	6.	6.	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	9650.	9650.	9650.	9650.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	190.	190.	190.	190.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	6.	6.	6.	6.	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	1	42.	42.	42.	42.	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	07/24/91-07/24/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/24/91-07/24/91	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0053

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00						1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00						1	0	0.00			
		Other-Lo Lim.	6.5	1	1	1.00						1	1	1.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00	1	0	0.00								
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	1	1.00	1	1	1.00								
01030	CHROMIUM, DISSOLVED	Drinking Water	5.	1	1	1.00	1	1	1.00								
01040	COPPER, DISSOLVED	Drinking Water	100.	1	0	0.00	1	0	0.00								
01049	LEAD, DISSOLVED	Fresh Acute	18.	1	1	1.00	1	1	1.00								
		Drinking Water	1300.	1	0	0.00	1	0	0.00								
01065	NICKEL, DISSOLVED	Fresh Acute	82.	1	0	0.00	1	0	0.00								
		Drinking Water	15.	0 &	0	0.00											
01090	ZINC, DISSOLVED	Fresh Acute	1400.	1	0	0.00	1	0	0.00								
71890	MERCURY, DISSOLVED	Drinking Water	100.	1	0	0.00	1	0	0.00								
		Fresh Acute	120.	1	0	0.00	1	0	0.00								
		Drinking Water	5000.	1	0	0.00	1	0	0.00								
		Fresh Acute	2.4	1	0	0.00	1	0	0.00								
		Drinking Water	2.	1	0	0.00	1	0	0.00								

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0054

NPS Station ID: RICH0054	LAT/LON: 37.421642/ -77.420726	Agency: 11NPSWRD	Date Created: 07/12/97
Location: LANDFILL ASSESSMENT FOR RICH STATION FD-06		FIPS State/County: 51041 VIRGINIA/CHESTERFIELD	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): RICH_FD_06	
RMI-Indexes:		Within Park Boundary: Yes	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: JAMES RIVER		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:

Description:  
 THE SITE IS LOCATED ON THE DREWRY'S BLUFF VIRGINIA-CHESTERFIELD CO. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS NEAR THE SOUTH-EAST BORDER OF THE FORT DARLING UNIT OF THE RICHMOND NATIONAL BATTLE- FIELD PARK. THE SITE IS LOCATED IMMEDIATELY BEFORE AN UNNAMED TRIBUTARY'S CONFLUENCE WITH THE JAMES RIVER. THE STUDY MEASURED POSSIBLE CONTAMINATION OF THE TRIBUTARY TO THE JAMES RIVER. THE LEACHATE WAS PRESUMED TO BE FROM A LANDFILL ADJACENT TO THE PARK. THE LANDFILL CLOSED IN 1972 AND WAS COVERED WITH TOPSOIL; CONTOURED AND REVEGETATED. AT THE TIME OF THE STUDY THERE WAS VISIBLE SUBLIMATION IN THE LANDFILL'S EARTHEN CAP AND AN ORANGE-REDDISH LEACHATE STAIN IN THE CHANNEL. THE DATA IS FROM A STUDY BY DEL NIMMO ET AL. "ASSESSMENT OF AN URBAN LANDFILL ON TRIBUTARY WATER QUALITY." FOR MORE INFORMATION CONTACT MIKE BRENNAN RESOURCES MANAGEMENT SPECIALIST RICHMOND NATIONAL BATTLEFIELD PARK. PH.804-795-5019. DATA PROCESSED AND UPLOADED TO STORET BY CURTIS COOPER NPS-WRD FT COLLINS CO 80525. PH.970-225-3516.

## Parameter Inventory for Station: RICH0054

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/16/89-06/16/89	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/16/89-06/16/89	1	2200.	2200.	2200.	2200.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/16/89-06/16/89	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00406 PH, FIELD, STANDARD UNITS SU	06/16/89-06/16/89	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00406 CONVERTED PH, FIELD, STANDARD UNITS	06/16/89-06/16/89	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00406 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/16/89-06/16/89	1	2.512	2.512	2.512	2.512	0.	0.	**	**	**	**
01005 BARIUM, DISSOLVED (UG/L AS BA)	07/24/91-07/24/91	2	30.	30.	30.	30.	0.	0.	**	**	**	**
01025 CADMIUM, DISSOLVED (UG/L AS CD)	07/24/91-07/24/91	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01030 CHROMIUM, DISSOLVED (UG/L AS CR)	07/24/91-07/24/91	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040 COPPER, DISSOLVED (UG/L AS CU)	07/24/91-07/24/91	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01046 IRON, DISSOLVED (UG/L AS FE)	07/24/91-07/24/91	2##	132.5	132.5	260.	5.	32512.5	180.312	**	**	**	**
01049 LEAD, DISSOLVED (UG/L AS PB)	07/24/91-07/24/91	2##	25.	25.	25.	25.	0.	0.	**	**	**	**
01056 MANGANESE, DISSOLVED (UG/L AS MN)	07/24/91-07/24/91	2	915.	915.	980.	850.	8450.	91.924	**	**	**	**
01060 MOLYBDENUM, DISSOLVED (UG/L AS MO)	07/24/91-07/24/91	2	20.	20.	20.	20.	0.	0.	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	07/24/91-07/24/91	2##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01090 ZINC, DISSOLVED (UG/L AS ZN)	07/24/91-07/24/91	2##	5.	5.	5.	5.	0.	0.	**	**	**	**
01106 ALUMINUM, DISSOLVED (UG/L AS AL)	07/24/91-07/24/91	2##	50.	50.	50.	50.	0.	0.	**	**	**	**
50119 ALUMINUM, ICAP TEST METHOD, SEDIMENT, TOTAL MG/KG	07/24/91-07/24/91	2	7485.	7485.	7630.	7340.	42050.	205.061	**	**	**	**
50122 BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	53.	53.	60.	46.	98.	9.899	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0054

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	1.05	1.05	1.5	0.6	0.405	0.636	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	6.55	6.55	9.	4.1	12.005	3.465	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	6.	6.	6.	0.	0.	**	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	19300.	19300.	26800.	11800.	112500000.	10606.602	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	165.	165.	200.	130.	2450.	49.497	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	4.	4.	4.	4.	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	11.	11.	16.	6.	50.	7.071	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	07/24/91-07/24/91	2	24.5	24.5	28.	21.	24.5	4.95	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	07/24/91-07/24/91	2	2.5	2.5	3.	2.	0.5	0.707	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/24/91-07/24/91	2 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0054

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00						1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00						1	0	0.00			
		Other-Lo Lim.	6.5	1	1	1.00						1	1	1.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	2	0	0.00	2	0	0.00								
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	0 &	0	0.00											
01030	CHROMIUM, DISSOLVED	Drinking Water	5.	0 &	0	0.00											
01040	COPPER, DISSOLVED	Fresh Acute	100.	2	0	0.00	2	0	0.00								
01049	LEAD, DISSOLVED	Drinking Water	18.	2	0	0.00	2	0	0.00								
01049	LEAD, DISSOLVED	Fresh Acute	1300.	2	0	0.00	2	0	0.00								
01065	NICKEL, DISSOLVED	Drinking Water	82.	2	0	0.00	2	0	0.00								
01090	ZINC, DISSOLVED	Fresh Acute	15.	0 &	0	0.00											
71890	MERCURY, DISSOLVED	Drinking Water	1400.	2	0	0.00	2	0	0.00								
		Drinking Water	100.	2	0	0.00	2	0	0.00								
		Fresh Acute	5000.	2	0	0.00	2	0	0.00								
		Drinking Water	120.	2	0	0.00	2	0	0.00								
		Fresh Acute	2.4	2	1	0.50	2	1	0.50								
		Drinking Water	2.	2	2	1.00	2	2	1.00								

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0055

NPS Station ID: RICH0055	LAT/LON: 37.421892/ -77.420977	Agency: 11NPSWRD	Date Created: 07/17/99
Location: MOUTH OF AN UNNAMED TRIBUTARY AT JAMES RIVER		FIPS State/County: 51041 VIRGINIA/CHESTERFIELD	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): RICH_NPS_1	
RMI-Indexes:		Within Park Boundary: Yes	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: JAMES RIVER		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:			
THE STATION IS LOCATED ON THE DREWRY'S BLUFF VA 7.5 MINUTE SERIES PARK (RICH) BOUNDARIES. THE SITE IS AT THE MOUTH OF AN UNNAMED TRIBUTARY AT JAMES RIVER NEAR DREWRY'S BLUFF. DATA WERE COLLECTED ON 2 SEPTEMBER 1997 AS PART OF A BASELINE MONITORING PROJECT TO ASSESS THE IMPACT OF A NEARBY COUNTY LANDFILL (ACQUIRED BY RICH DURING THE 1970'S) ON THE TRIBUTARY. THE TRIBUTARY'S SOURCE COLLECTS RUNOFF FROM AN AREA NORTHEAST OF THE PARK THAT INCLUDES ASPHALT STORAGE CONTAINERS. DATA ARE FROM AN ANALYTICAL REPORT TITLED "DREWRY'S BLUFF PROJECT." ANALYTICAL REPORT NO. 7C480-A; BY TEXAS A&M UNIVERSITY'S GEOCHEMICAL AND ENVIRONMENTAL RESEARCH GROUP. FOR MORE INFORMATION CONTACT THE CHIEF OF RESOURCES AT RICH; 3215 EAST BROAD STREET; RICHMOND VA 23223; TEL(804)226-1981. DATA WERE PROCESSED AND UPLOADED TO STORET BY SHAWNDRAY MAWHORTER; NPS-WRD; 1201 OAKRIDGE DRIVE SUITE 250; FORT COLLINS CO 80528; TEL(970)225-3516.			

## Parameter Inventory for Station: RICH0055

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00924 MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	1	249.7	249.7	249.7	249.7	0.	0.	**	**	**	**
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	1	4.2	4.2	4.2	4.2	0.	0.	**	**	**	**
01008 BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	1	30.16	30.16	30.16	30.16	0.	0.	**	**	**	**
01013 BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	1	0.61	0.61	0.61	0.61	0.	0.	**	**	**	**
01018 IRON,TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	1	15863.6	15863.6	15863.6	15863.6	0.	0.	**	**	**	**
01023 BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	1##	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	5.55	5.55	5.55	5.55	0.	0.	**	**	**	**
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	1	2.76	2.76	2.76	2.76	0.	0.	**	**	**	**
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	1	3.91	3.91	3.91	3.91	0.	0.	**	**	**	**
01053 MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	1	149.63	149.63	149.63	149.63	0.	0.	**	**	**	**
01063 MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	1##	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	5.42	5.42	5.42	5.42	0.	0.	**	**	**	**
01083 STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	1##	1.125	1.125	1.125	1.125	0.	0.	**	**	**	**
01088 VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	1	6.7	6.7	6.7	6.7	0.	0.	**	**	**	**
01108 ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	1	1966.4	1966.4	1966.4	1966.4	0.	0.	**	**	**	**
01148 SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
01157 ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	1	14.06	14.06	14.06	14.06	0.	0.	**	**	**	**
34203 ACENAPHTHYLENE DRY WGTBOTUG/KG	09/02/97-09/02/97	1##	0.05	0.05	0.05	0.05	0.05	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0055

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	2.	2.	2.	2.	0.	0.	**	**	**	**
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	1 ##	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2.3	2.3	2.3	2.3	0.	0.	**	**	**	**
34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	2 ##	0.045	0.045	0.09	0.	0.004	0.064	**	**	**	**
34262	DELTA BENZENE HEXACHLORIDE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
34323	CHRYSENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	1.4	1.4	1.4	1.4	0.	0.	**	**	**	**
34359	ENDOSULFAN, BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
34379	FLUORANTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**
34384	FLUORENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34406	INDENO (1,2,3-CD) PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	1.	1.	1.	1.	0.	0.	**	**	**	**
34445	NAPHTHALENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1 ##	0.85	0.85	0.85	0.85	0.	0.	**	**	**	**
34464	PHENANTHRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	1.7	1.7	1.7	1.7	0.	0.	**	**	**	**
34472	PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34524	BENZO(GH)PERYLENE,1,2-BENZOPERYLENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1 ##	0.55	0.55	0.55	0.55	0.	0.	**	**	**	**
34529	BENZO(A)ANTHRACENE,1,2-BENZANTHRACENDRY WGBTBOTUG/KG	09/02/97-09/02/97	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	2 ##	0.013	0.013	0.02	0.005	0.	0.011	**	**	**	**
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39301	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.035	0.035	0.06	0.01	0.001	0.035	**	**	**	**
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.45	0.45	0.9	0.	0.405	0.636	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	2 ##	0.003	0.003	0.005	0.	0.	0.004	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
45095	C2 ALKYL DIBENZOTHOIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	16.8	16.8	16.8	16.8	0.	0.	**	**	**	**
49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1 ##	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
49761	C3 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**
49767	C1 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
49769	C3 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
49782	NAPHTHALENE, C1 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1 ##	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
49783	NAPHTHALENE, C2 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1 ##	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
49784	NAPHTHALENE, C3 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	3.1	3.1	3.1	3.1	0.	0.	**	**	**	**
49785	NAPHTHALENE, C4 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	2.	2.	2.	2.	0.	0.	**	**	**	**
49805	C1 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**
49806	C2 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
49807	C3 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
49808	C4 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1 ##	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
50590	PCB CONGENER IUPAC#107, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2	0.065	0.065	0.07	0.06	0.	0.007	**	**	**	**
50592	PCB CONGENER IUPAC#207, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50595	PCB CONGENER IUPAC#25, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50596	PCB CONGENER IUPAC#29, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.03	0.03	0.06	0.	0.002	0.042	**	**	**	**
50601	PCB CONGENER IUPAC#53, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2	2.335	2.335	2.66	2.01	0.211	0.46	**	**	**	**
50602	PCB CONGENER IUPAC#63, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50603	PCB CONGENER IUPAC#81, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50604	PCB CONGENER IUPAC#84, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50605	PCB CONGENER IUPAC#1, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2	1.575	1.575	1.88	1.27	0.186	0.431	**	**	**	**
50607	PCB CONGENER IUPAC#205, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50609	PCB CONGENER IUPAC#193, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50610	PCB CONGENER IUPAC#191, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50611	PCB CONGENER IUPAC#189, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50612	PCB CONGENER IUPAC#175, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2	0.055	0.055	0.06	0.05	0.	0.007	**	**	**	**
50614	PCB CONGENER IUPAC#130, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.008	0.008	0.015	0.	0.	0.011	**	**	**	**
50615	PCB CONGENER IUPAC#119, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.005	0.005	0.01	0.	0.	0.007	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0055

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50784	ALPHA-CHLORDANE SEDIMENT,DRY WT,BOTTOM DEP UG/KG	09/02/97-09/02/97	2	0.04	0.04	0.05	0.03	0.	0.014	**	**	**	**
50910	DIBENZO(A,H)ANTHRACENE SED DRY WEIGHT BOTTOM UG/KG	09/02/97-09/02/97	1	1.2	1.2	1.2	0.	0.	0.	**	**	**	**
50942	1-METHYLPHENANTHRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50943	2,6-DIMETHYLNAPHTHALENE, DRY WEIGHT, SEDIMENTUG/KG	09/02/97-09/02/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
50947	PCB CONGENER #28 (CL3), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2	0.265	0.265	0.41	0.12	0.042	0.205	**	**	**	**
50948	PCB CONGENER #52 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50949	PCB CONGENER #44 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50950	PCB CONGENER #66 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50951	PCB CONGENER #77/110 (CL4/CLS) DRY WGT,SED UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50953	PCB CONGENER #118 (CLS), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50955	PCB CONGENER #105 (CLS), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.003	0.003	0.005	0.	0.	0.004	**	**	**	**
50958	PCB CONGENER #187 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.005	0.005	0.01	0.	0.	0.007	**	**	**	**
50959	PCB CONGENER #128 (CL6), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.025	0.025	0.05	0.	0.001	0.035	**	**	**	**
50960	PCB CONGENER #180 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.033	0.033	0.05	0.	0.015	0.025	**	**	**	**
50963	PCB CONGENER #206 (CL9), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
50964	PCB CONGENER #209 (CL10),DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	2	0.065	0.065	0.08	0.05	0.	0.021	**	**	**	**
50966	GAMMA-CHLORDANE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2 ##	0.025	0.025	0.04	0.01	0.	0.021	**	**	**	**
61080	1,6,7-TRIMETHYLNAPHTHALENE SEDIMENT DRY WT UG/KG	09/02/97-09/02/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
61098	C4-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
61100	C3-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
61101	C2-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
61104	C1-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
61105	C1-FLUORANTHENES+PYRENES SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1 ##	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**
61115	PCB CONGENER #169 (C16) SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61160	PCB CONGENER #126 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61161	PCB CONGENER # 77 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2	0.15	0.15	0.2	0.	0.005	0.071	**	**	**	**
61197	TRICHLOROBIPHENYL,2,3',5,-,(PCB#26)DRY WT BOT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61239	PAHS WITHOUT PERYLENE,TOTAL,SEDIMENT,DRY WT UG/KG	09/02/97-09/02/97	1	51.	51.	51.	51.	0.	0.	**	**	**	**
61261	PCB CONGENER #8/5, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61262	PCB CONGENER #195/208, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61263	PCB CONGENER #18/17, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2	0.34	0.34	0.38	0.3	0.003	0.057	**	**	**	**
61264	PCB CONGENER #170/190, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.14	0.14	0.28	0.	0.039	0.198	**	**	**	**
61265	PCB CONGENER #153/132, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.005	0.005	0.01	0.	0.	0.007	**	**	**	**
61266	PCB CONGENER #138/160, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.05	0.05	0.1	0.	0.	0.005	0.071	**	**	**
61268	PCB CONGENER #101/90, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61285	1-METHYLNAPHTHALENE, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
61783	PCB CONGERNER #80/95 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.043	0.043	0.08	0.05	0.003	0.053	**	**	**	**
61784	PCB CONGERNER #61/74 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61785	PCB CONGERNER #41/64 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61786	PCB CONGERNER #37/42/59 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61787	PCB CONGERNER #47/75 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61788	PCB CONGERNER #22/51 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61789	PCB CONGERNER #20/33 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61794	POLYAMMATIC HYDROCARBON TOT W/ PERYLN SED DRYUG/KG	09/02/97-09/02/97	1	67.8	67.8	67.8	67.8	0.	0.	**	**	**	**
61795	PCB CONGERNER #196/203 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61796	PCB CONGERNER #153/173/201 SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61797	PCB CONGERNER #171/202 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.045	0.045	0.09	0.	0.004	0.064	**	**	**	**
61798	PCB CONGERNER #176/137 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61799	PCB CONGERNER #141/179 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61800	PCB CONGERNER #123/149 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61801	PCB CONGERNER #87/115 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.025	0.025	0.05	0.	0.001	0.035	**	**	**	**
61802	PCB CONGERNER #56/60 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61803	PCB CONGERNER #55/91 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61804	PCB CONGERNER #16/32 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.05	0.05	0.1	0.	0.005	0.071	**	**	**	**
61805	PCB CONGERNER #24/27 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61806	PCB CONGERNER #7/9 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61807	PCB CONGERNER #194 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61808	PCB CONGERNER #199 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61809	PCB CONGERNER #200 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61810	PCB CONGERNER #197 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61811	PCB CONGERNER #172 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2	0.03	0.03	0.04	0.02	0.	0.014	**	**	**	**
61812	PCB CONGERNER #156 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
61813	PCB CONGERNER #177 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0055

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
61814	PCB CONGERNER #174 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61815	PCB CONGERNER #185 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61816	PCB CONGERNER #167 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.04	0.04	0.08	0.	0.003	0.057	**	**	**	**
61817	PCB CONGERNER #183 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61818	PCB CONGERNER #166 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61819	PCB CONGERNER #178 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61820	PCB CONGERNER #129 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61821	PCB CONGERNER #158 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61822	PCB CONGERNER #146 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.003	0.003	0.005	0.	0.	0.004	**	**	**	**
61823	PCB CONGERNER #114 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61824	PCB CONGERNER #135 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61825	PCB CONGERNER #151 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61826	PCB CONGERNER #82 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61827	PCB CONGERNER #136 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61828	PCB CONGERNER #85 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61829	PCB CONGERNER #97 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61830	PCB CONGERNER #83 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61831	PCB CONGERNER #99 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.013	0.013	0.015	0.01	0.	0.004	**	**	**	**
61832	PCB CONGERNER #92 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2	0.195	0.195	0.29	0.1	0.018	0.134	**	**	**	**
61833	PCB CONGERNER #70 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2	0.285	0.285	0.36	0.21	0.011	0.106	**	**	**	**
61834	PCB CONGERNER #67 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61835	PCB CONGERNER #40 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.083	0.083	0.14	0.025	0.007	0.081	**	**	**	**
61836	PCB CONGERNER #72 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61837	PCB CONGERNER #48 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61838	PCB CONGERNER #49 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61839	PCB CONGERNER #69 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.04	0.04	0.08	0.	0.003	0.057	**	**	**	**
61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.055	0.055	0.11	0.	0.006	0.078	**	**	**	**
61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.	0.	0.	0.	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.	0.005	0.	**	**	**	**
75042	HEXAChLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	2##	0.03	0.03	0.035	0.025	0.	0.007	**	**	**	**
75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	2##	0.02	0.02	0.03	0.01	0.	0.014	**	**	**	**
75558	BIPHENYL SEDIMENT,DRY WGT UG/KG	09/02/97-09/02/97	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
75714	DIBENZO(BD)THIOPHENE(DIPHEN*)SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	2	0.04	0.04	0.06	0.02	0.001	0.028	**	**	**	**
78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.45	0.45	0.45	0.45	0.	0.	**	**	**	**
79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	2##	0.315	0.315	0.55	0.08	0.11	0.332	**	**	**	**
79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	2##	0.053	0.053	0.08	0.025	0.002	0.039	**	**	**	**
79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	2##	0.023	0.023	0.025	0.02	0.	0.004	**	**	**	**
79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	2##	0.06	0.06	0.12	0.	0.007	0.085	**	**	**	**
81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	2	44.	44.	61.	27.	578.	24.042	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0056

NPS Station ID: RICH0056

Location: POINT WHERE UNNAMED TRIB OF JAMES R. ENTERS PARK

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: NORTH ATLANTIC

Minor Basin: JAMES RIVER

RF1 Index: 02080206

RF3 Index: 02080206000501.22

Description:

THE STATION IS LOCATED ON THE DREWRY'S BLUFF VA 7.5 MINUTE SERIES

(TOPOGRAPHIC) QUADRANGLE AND IS INSIDE THE RICHMOND NATIONAL BATTLEFIELD PARK (RICH) BOUNDARIES. THE SITE IS AT THE POINT WHERE AN UNNAMED TRIBUTARY AT JAMES RIVER ENTERS RICH NEAR DREWRY'S BLUFF. DATA WERE COLLECTED ON 2 SEPTEMBER 1997 AS PART OF A BASELINE MONITORING PROJECT TO ASSESS THE IMPACT OF A NEARBY COUNTY LANDFILL (ACQUIRED BY RICH DURING THE 1970'S) ON THE TRIBUTARY. THE TRIBUTARY'S SOURCE COLLECTS RUNOFF FROM AN AREA NORTHEAST OF THE PARK THAT INCLUDES ASPHALT STORAGE CONTAINERS. DATA ARE FROM AN ANALYTICAL REPORT TITLED "DREWRY'S BLUFF PROJECT," ANALYTICAL REPORT NO. 7C480-A; BY TEXAS A&M UNIVERSITY; GEOCHEMICAL AND ENVIRONMENTAL RESEARCH GROUP. FOR MORE INFORMATION CONTACT THE CHIEF OF RESOURCES AT RICH; 3215 EAST BROAD STREET; RICHMOND VA 23223; TEL(804)226-1981. DATA WERE PROCESSED AND UPLOADED TO STORET BY SHAWNDRAY MAWHORTER; NPS-WRD; 1201 OAKRIDGE DRIVE SUITE 250; FORT COLLINS CO 80528; TEL(970)225-3516.

LAT/LON: 37.421892/ -77.424727

Agency: 11NPSWRD

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): RICH\_NPS\_6

Within Park Boundary: Yes

Date Created: 07/17/99

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

## Parameter Inventory for Station: RICH0056

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00924 MAGNESIUM IN BOTTOM DEPOS. (MG/KG AS MG DRY WGT)	09/02/97-09/02/97	1	663.6	663.6	663.6	663.6	0.	0.	**	**	**	**
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/02/97-09/02/97	1	2.31	2.31	2.31	2.31	0.	0.	**	**	**	**
01008 BARIUM IN BOTTOM DEPOSITS (MG/KG AS BA DRY WGT)	09/02/97-09/02/97	1	24.78	24.78	24.78	24.78	0.	0.	**	**	**	**
01013 BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	09/02/97-09/02/97	1	0.71	0.71	0.71	0.71	0.	0.	**	**	**	**
01018 IRON,TOTAL IN BOTTOM DEPOSITS (MG/KG WT WGT-FE)	09/02/97-09/02/97	1	9329.8	9329.8	9329.8	9329.8	0.	0.	**	**	**	**
01023 BORON IN BOTTOM DEPOSITS (MG/KG AS B DRY WGT)	09/02/97-09/02/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	9.43	9.43	9.43	9.43	0.	0.	**	**	**	**
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/02/97-09/02/97	1	3.71	3.71	3.71	3.71	0.	0.	**	**	**	**
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/02/97-09/02/97	1	9.44	9.44	9.44	9.44	0.	0.	**	**	**	**
01053 MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/02/97-09/02/97	1	91.81	91.81	91.81	91.81	0.	0.	**	**	**	**
01063 MOLYBDENUM IN BOT. DEPOSITS (MG/KG AS MO DRY WGT)	09/02/97-09/02/97	1 ##	0.24	0.24	0.24	0.24	0.	0.	**	**	**	**
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/02/97-09/02/97	1	3.64	3.64	3.64	3.64	0.	0.	**	**	**	**
01083 STRONTIUM IN BOTTOM DEPOSITS(MG/KG AS SR DRY WGT)	09/02/97-09/02/97	1 ##	0.98	0.98	0.98	0.98	0.	0.	**	**	**	**
01088 VANADIUM IN BOTTOM DEPOSITS (MG/KG AS V DRY WGT)	09/02/97-09/02/97	1	12.75	12.75	12.75	12.75	0.	0.	**	**	**	**
01108 ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/02/97-09/02/97	1	3370.6	3370.6	3370.6	3370.6	0.	0.	**	**	**	**
01148 SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/02/97-09/02/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
01157 ZINC, TOTAL IN BOTTOM DEPOSITS (MG/KG AS ZN)	09/02/97-09/02/97	1	29.6	29.6	29.6	29.6	0.	0.	**	**	**	**
34203 ACENAPHTHYLENE DRY WGTBOTUG/KG	09/02/97-09/02/97	2 ##	0.65	0.65	1.2	0.1	0.605	0.778	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0056

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	50th	75th	90th
34208	ACENAPHTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2##	0.125	0.125	0.15	0.1	0.001	0.035	**	**	**	**	**
34223	ANTHRACENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2##	1.7	1.7	3.3	0.1	5.12	2.263	**	**	**	**	**
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	2##	4.225	4.225	7.9	0.55	27.011	5.197	**	**	**	**	**
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	0.75	0.75	1.2	0.3	0.405	0.636	**	**	**	**	**
34250	BENZO-A-PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2	3.4	3.4	4.7	2.1	3.38	1.838	**	**	**	**	**
34257	B-BHC-BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1	0.34	0.34	0.34	0.34	0.	0.	**	**	**	**	**
34262	DELTA BENZENE HEXACHLORIDE DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
34323	CHRYSENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2##	0.15	0.15	0.2	0.1	0.005	0.071	**	**	**	**	**
34359	ENDOSULFAN, BETA DRY WGBTBOTUG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
34379	FLUORANTHENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2	3.3	3.3	4.9	1.7	5.12	2.263	**	**	**	**	**
34384	FLUORENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2##	0.425	0.425	0.6	0.25	0.061	0.247	**	**	**	**	**
34406	INDENO (1,2,3-CD) PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2	2.4	2.4	3.9	0.9	4.5	2.121	**	**	**	**	**
34445	NAPHTHALENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2##	0.725	0.725	0.9	0.55	0.061	0.247	**	**	**	**	**
34464	PHENANTHRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2##	2.025	2.025	3.5	0.55	4.351	2.086	**	**	**	**	**
34472	PYRENE DRY WGBTBOTUG/KG	09/02/97-09/02/97	2	3.85	3.85	6.	1.7	9.245	3.041	**	**	**	**	**
34524	BENZO(GH)PERYLENE,1,2-BENZOPERYLENDRY WGBTBOTUG/KG	09/02/97-09/02/97	2##	3.	3.	5.6	0.4	13.52	3.677	**	**	**	**	**
34529	BENZO(A)ANTHRACENE1,2-BENZANTHRACENDRY WGBTBOTUG/KG	09/02/97-09/02/97	2	6.65	6.65	11.1	2.2	39.605	6.293	**	**	**	**	**
39070	CHLORDANE-NONACHLOR,CIS ISO BOTTOM DEPOS UG/KG	09/02/97-09/02/97	1	0.45	0.45	0.45	0.45	0.	0.	**	**	**	**	**
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**	**
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
39316	O,P'DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**	**
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**	**
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	09/02/97-09/02/97	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	09/02/97-09/02/97	1##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**	**
45095	C2 ALKYL DIBENZOTHOIOPHENE SEDDRY UG/KG	09/02/97-09/02/97	2##	2.6	2.6	4.9	0.3	10.58	3.253	**	**	**	**	**
49724	PERYLENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2	2.5	2.5	3.3	1.7	1.28	1.131	**	**	**	**	**
49743	BENZO(E)PYRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2	4.55	4.55	8.3	0.8	28.125	5.303	**	**	**	**	**
49759	C1 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	1.475	1.475	2.5	0.45	2.101	1.45	**	**	**	**	**
49760	C2 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	3.025	3.025	5.4	0.65	11.281	3.359	**	**	**	**	**
49761	C3 ALKYL FLUORENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	5.3	5.3	9.2	1.4	30.42	5.515	**	**	**	**	**
49767	C1 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	2##	0.875	0.875	1.6	0.15	1.051	1.025	**	**	**	**	**
49769	C3 ALKYL DIBENZOTHOIOPHENE,DRY WEIGHT,SEDIMENTUG/KG	09/02/97-09/02/97	2	4.05	4.05	7.1	1.	18.605	4.313	**	**	**	**	**
49782	NAPHTHALENE, C1 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	0.775	0.775	0.9	0.65	0.031	0.177	**	**	**	**	**
49783	NAPHTHALENE, C2 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	1.7	1.7	2.6	0.8	1.62	1.273	**	**	**	**	**
49784	NAPHTHALENE, C3 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2	3.7	3.7	4.6	2.8	1.62	1.273	**	**	**	**	**
49785	NAPHTHALENE, C4 ALKYL,DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2	2.05	2.05	2.4	1.7	0.245	0.495	**	**	**	**	**
49805	C1 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2	8.	8.	14.2	1.8	76.88	8.768	**	**	**	**	**
49806	C2 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2	15.65	15.65	28.8	2.5	345.845	18.597	**	**	**	**	**
49807	C3 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	4.35	4.35	8.3	0.4	31.205	5.586	**	**	**	**	**
49808	C4 ALKYL CHYRSENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	1.175	1.175	1.9	0.45	1.051	1.025	**	**	**	**	**
50590	PCB CONGENER IUPAC#107, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**	**
50592	PCB CONGENER IUPAC#207, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**	**
50595	PCB CONGENER IUPAC#25, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50596	PCB CONGENER IUPAC#29, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50601	PCB CONGENER IUPAC#53, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**	**
50602	PCB CONGENER IUPAC#63, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50603	PCB CONGENER IUPAC#81, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50604	PCB CONGENER IUPAC#84, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50605	PCB CONGENER IUPAC#1, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50607	PCB CONGENER IUPAC#205, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**	**
50609	PCB CONGENER IUPAC#193, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50610	PCB CONGENER IUPAC#191, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50611	PCB CONGENER IUPAC#189, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**	**
50612	PCB CONGENER IUPAC#175, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.03	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
50614	PCB CONGENER IUPAC#130, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50615	PCB CONGENER IUPAC#119, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0056

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	50th	75th	90th
50784	ALPHA-CHLORDANE SEDIMENT,DRY WT,BOTTOM DEP UG/KG	09/02/97-09/02/97	1	1.09	1.09	1.09	1.09	0.	0.	**	**	**	**	**
50910	DIBENZO(A,H)ANTHRACENE SED DRY WEIGHT BOTTOM UG/KG	09/02/97-09/02/97	2##	0.975	0.975	1.8	0.15	1.361	1.167	**	**	**	**	**
50942	1-METHYLPHENANTHRENE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	2##	0.65	0.65	1.2	0.1	0.605	0.778	**	**	**	**	**
50943	2,6-DIMETHYLNAPHTHALENE, DRY WEIGHT, SEDIMENTUG/KG	09/02/97-09/02/97	2##	0.475	0.475	0.8	0.15	0.211	0.46	**	**	**	**	**
50947	PCB CONGENER #28 (CL3), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**	**
50948	PCB CONGENER #52 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	1.13	1.13	1.13	1.13	0.	0.	**	**	**	**	**
50949	PCB CONGENER #44 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50950	PCB CONGENER #66 (CL4), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50951	PCB CONGENER #77/110 (CL4/CLS) DRY WGT,SED UG/KG	09/02/97-09/02/97	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**	**
50953	PCB CONGENER #118 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**	**
50955	PCB CONGENER #105 (CL5), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**	**
50958	PCB CONGENER #187 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**	**
50959	PCB CONGENER #128 (CL6), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.57	0.57	0.57	0.57	0.	0.	**	**	**	**	**
50960	PCB CONGENER #180 (CL7), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**	**
50963	PCB CONGENER #206 (CL9), DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1	0.23	0.23	0.23	0.23	0.	0.	**	**	**	**	**
50964	PCB CONGENER #209 (CL10),DRY WEIGHT,SEDIMENT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
50966	GAMMA-CHLORDANE, DRY WEIGHT, SEDIMENT UG/KG	09/02/97-09/02/97	1	1.22	1.22	1.22	1.22	0.	0.	**	**	**	**	**
61080	1,6,7-TRIMETHYLNAPHTHALENE SEDIMENT DRY WT UG/KG	09/02/97-09/02/97	2##	0.425	0.425	0.8	0.05	0.281	0.53	**	**	**	**	**
61098	C4-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	2	4.9	4.9	8.3	1.5	23.12	4.808	**	**	**	**	**
61100	C3-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	2	6.95	6.95	12.4	1.5	59.405	7.707	**	**	**	**	**
61101	C2-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	2	5.9	5.9	10.5	1.3	42.32	6.505	**	**	**	**	**
61104	C1-PHENANTHRENE+ANTHRACENE SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	2	4.4	4.4	7.5	1.3	19.22	4.384	**	**	**	**	**
61105	C1-FLUORANTHENES-PYRENES SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	3.675	3.675	6.8	0.55	19.531	4.419	**	**	**	**	**
61115	PCB CONGENER #169 (C16) SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61160	PCB CONGENER #126 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**	**
61161	PCB CONGENER # 77 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61197	TRICHLOROBIPHENYL,2,3',5,-,(PCB#26)DRY WT BOT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61239	PAHS WITHOUT PERYLENE,TOTAL,SEDIMENT,DRY WT UG/KG	09/02/97-09/02/97	2	125.5	125.5	206	45.	12960.5	113.844	**	**	**	**	**
61261	PCB CONGENER #8/5, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61262	PCB CONGENER #195/208, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61263	PCB CONGENER #18/17, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61264	PCB CONGENER #170/190, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**	**
61265	PCB CONGENER #153/132, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**	**
61266	PCB CONGENER #138/160, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**	**
61268	PCB CONGENER #101/90, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**	**
61285	1-METHYLNAPHTHALENE, SEDIMENT, DRY WEIGHT NG/G	09/02/97-09/02/97	2##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**	**
61783	PCB CONGERNER #80/95 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**	**
61784	PCB CONGERNER #61/74 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61785	PCB CONGERNER #41/64 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61786	PCB CONGERNER #37/42/59 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61787	PCB CONGERNER #47/75 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61788	PCB CONGERNER #22/51 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61789	PCB CONGERNER #20/33 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61794	POLYAMMATIC HYDROCARBON TOT W/ PERYLN SED DRYUG/KG	09/02/97-09/02/97	2	128.	128.	208.1	47.9	12832.02	113.279	**	**	**	**	**
61795	PCB CONGERNER #196/203 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61796	PCB CONGERNER #153/173/201 SEDIMENT DRY WGHT UG/KG	09/02/97-09/02/97	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**	**
61797	PCB CONGERNER #171/202 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**	**
61798	PCB CONGERNER #176/137 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61799	PCB CONGERNER #141/179 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61800	PCB CONGERNER #123/149 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**	**
61801	PCB CONGERNER #87/115 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61802	PCB CONGERNER #56/60 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61803	PCB CONGERNER #55/91 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61804	PCB CONGERNER #16/32 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.28	0.28	0.28	0.28	0.	0.	**	**	**	**	**
61805	PCB CONGERNER #24/27 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61806	PCB CONGERNER #7/9 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61807	PCB CONGERNER #194 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.19	0.19	0.19	0.19	0.19	0.	0.	**	**	**	**
61808	PCB CONGERNER #199 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**	**
61809	PCB CONGERNER #200 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61810	PCB CONGERNER #197 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**	**
61811	PCB CONGERNER #172 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.04	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
61812	PCB CONGERNER #156 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**	**
61813	PCB CONGERNER #177 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0056

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
61814	PCB CONGERNER #174 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
61815	PCB CONGERNER #185 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61816	PCB CONGERNER #167 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61817	PCB CONGERNER #183 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
61818	PCB CONGERNER #166 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61819	PCB CONGERNER #178 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61820	PCB CONGERNER #129 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61821	PCB CONGERNER #158 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
61822	PCB CONGERNER #146 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
61823	PCB CONGERNER #114 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61824	PCB CONGERNER #135 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
61825	PCB CONGERNER #151 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
61826	PCB CONGERNER #82 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61827	PCB CONGERNER #136 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61828	PCB CONGERNER #85 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
61829	PCB CONGERNER #97 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61830	PCB CONGERNER #83 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
61831	PCB CONGERNER #99 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
61832	PCB CONGERNER #92 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61833	PCB CONGERNER #70 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61834	PCB CONGERNER #67 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61835	PCB CONGERNER #40 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
61836	PCB CONGERNER #72 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61837	PCB CONGERNER #48 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61838	PCB CONGERNER #49 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
61839	PCB CONGERNER #69 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61840	PCB CONGERNER #39 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61841	PCB CONGERNER #46 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61842	PCB CONGERNER #45 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61843	PCB CONGERNER #31 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61844	PCB CONGERNER #15 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
61845	PCB CONGERNER #30 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1##	0.	0.	0.	0.	0.	0.	**	**	**	**
61846	4,4' DDD/PCB CONGENER 114 SED. DRY WEIGT UG/KG	09/02/97-09/02/97	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
61847	OXYCHLORDANE/PCB 63 SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/02/97-09/02/97	1##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
75042	HEXAChLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
75043	PENTACHLOROANISOLE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
75558	BIPHENYL SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	2	0.4	0.4	0.5	0.3	0.02	0.141	**	**	**	**
75714	DIBENZO(BD)THIOPHENE(DIPHEN*)SEDIMENT,DRY WGT,UG/KG	09/02/97-09/02/97	2##	0.225	0.225	0.4	0.05	0.061	0.247	**	**	**	**
78657	NONACHLOR, TRANS, SEDIMENT, DRY WEIGHT, UG/KG	09/02/97-09/02/97	1	0.83	0.83	0.83	0.83	0.	0.	**	**	**	**
78868	2-METHYLNAPHTHALENE IN SEDIMENT DRY WEIGHT UG/KG	09/02/97-09/02/97	2##	0.425	0.425	0.5	0.35	0.011	0.106	**	**	**	**
79787	TETRACHLOROBENZENE,1,2,4,5- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.22	0.22	0.22	0.22	0.	0.	**	**	**	**
79789	TETRACHLOROBENZENE,1,2,3,4- SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
79790	PENTACHLOROBENZENE SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
79792	CHLORPYRIFOS SEDIMENT,DRY,WT,UG/KG	09/02/97-09/02/97	1	4.38	4.38	4.38	4.38	0.	0.	**	**	**	**
81373	SOLIDS IN SEDIMENT SAMPLEPERCENT DRY WEIGHT (%)	09/02/97-09/02/97	2	62.95	62.95	68.9	57.	70.805	8.415	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0057

NPS Station ID: RICH0057  
 Location: FOURMILE CREEK, KINGSLAND ROAD  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: FOURMILE CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.421949/ -77.308893

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-FOM001.85  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

### Parameter Inventory for Station: RICH0057

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-03/27/95	3	12.1	11.633	13.5	9.3	4.573	2.139	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/07/94-03/27/95	2	71.5	71.5	74.	69.	12.5	3.536	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-03/27/95	3	10.4	10.367	10.7	10.	0.123	0.351	**	**	**	**
00400	PH (STANDARD UNITS)	12/07/94-03/27/95	3	5.7	5.687	5.74	5.62	0.004	0.061	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/07/94-03/27/95	3	5.7	5.684	5.74	5.62	0.004	0.061	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/07/94-03/27/95	3	1.995	2.071	2.399	1.82	0.088	0.297	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0057

Parameter	Std. Type	Std. Value	Total	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a	
			Obs	Exceed	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	3	0	0.00		2	0	0.00	1	0	0.00
00400	PH	Fresh Chronic	9.	3	0	0.00		2	0	0.00	1	0	0.00
		Other-Lo Lim.	6.5	3	3	1.00		2	2	1.00	1	1	1.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0058

NPS Station ID: RICH0058	LAT/LON: 37.422198/ -77.424781	Agency: 11NPSWRD	Date Created: 07/12/97
Location: LANDFILL ASSESSMENT FOR RICH STATION FD-01		FIPS State/County: 51041 VIRGINIA/CHESTERFIELD	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): RICH_FD_01	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: JAMES RIVER		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:	THE SITE IS LOCATED ON THE DREWRY'S BLUFF VIRGINIA-CHESTERFIELD CO. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS OUTSIDE THE FORT DARLING UNIT OF THE RICHMOND NATIONAL BATTLEFIELD PARK. THE SITE IS LOCATED AT THE EXXON LAGOON OUTLET. THE STUDY MEASURED POSSIBLE CONTAMINATION OF AN UNNAMED TRIBUTARY TO THE JAMES RIVER. FLOW THROUGH THIS SITE IS NOT KNOWN TO BE PERMANENT. THE LEACHATE WAS PRESUMED TO BE FROM A LANDFILL ADJACENT TO THE PARK. THE LANDFILL CLOSED IN 1972 AND WAS COVERED WITH TOPSOIL; CONTOURED AND REVEGETATED. AT THE TIME OF THE STUDY THERE WAS VISIBLE SUBLIMATION IN THE LANDFILL'S EARTHEN CAP AND AN ORANGE-REDDISH LEACHATE STAIN IN THE CHANNEL. THE DATA IS FROM A STUDY BY DEL NIMMO ET AL. "ASSESSMENT OF AN URBAN LANDFILL ON TRIBUTARY WATER QUALITY." FOR MORE INFORMATION CONTACT MIKE BRENNAN RESOURCES MANAGEMENT SPECIALIST RICHMOND NATIONAL BATTLEFIELD PARK. PH.804-795-5019. DATA PROCESSED AND UPLOADED TO STORET BY CURTIS COOPER NPS-WRD FORT COLLINS CO 80525. PH.970-225-3516.		

### Parameter Inventory for Station: RICH0058

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/15/89-06/15/89	1	35.	35.	35.	35.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/15/89-06/15/89	1	700.	700.	700.	700.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/15/89-06/15/89	1	6.2	6.2	6.2	6.2	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	06/15/89-06/15/89	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	06/15/89-06/15/89	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/15/89-06/15/89	1	2.512	2.512	2.512	2.512	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0058

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a	
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00	
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00				1	0	0.00	
		Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0059

NPS Station ID: RICH0059  
 Location: JAMES RIVER, BUOY 160  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD  
 RIVER: JAMES RIVER  
 AMBIENT MONITORING SECTION: 02  
 BASIN: 2 - JAMES  
 TOPO MAP #: 0132  
 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.425004/ -77.402781

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-JMS101.03  
 Within Park Boundary: No

Date Created: 06/25/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0059

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	52	25.3	24.41	30.8	15.	19.624	4.43	17.29	21.6	28.5	29.24
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	11	6.5	5.982	9.4	3.4	4.288	2.071	3.42	3.8	7.3	9.16
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	48	231.	242.438	468.	121.	6025.911	77.627	145.8	182.25	294.25	331.7
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	11	231.	214.273	284.	130.	2914.618	53.987	130.2	161.	247.	282.4
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	**	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	51	7.9	7.931	10.2	6.2	0.919	0.959	6.7	7.2	8.7	9.18
00310	BOD, 5 DAY, 20 DEG C MG/L	06/28/94-06/01/95	12	1.05	1.033	2.4	0.5	0.346	0.588	0.5	0.5	1.45	2.13
00400	PH(STANDARD UNITS)	06/28/94-10/26/98	52	7.63	7.682	8.88	7.05	0.126	0.355	7.284	7.445	7.815	8.18
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	52	7.63	7.567	8.88	7.05	0.139	0.373	7.284	7.445	7.815	8.18
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	52	0.023	0.027	0.089	0.001	0.	0.019	0.007	0.015	0.036	0.052
00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	10	7.4	7.31	7.7	6.7	0.103	0.321	6.72	7.05	7.525	7.69
00403	CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	10	7.389	7.19	7.7	6.7	0.119	0.345	6.72	7.05	7.525	7.69
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	10	0.041	0.065	0.2	0.02	0.003	0.057	0.02	0.03	0.091	0.192
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	07/28/94-06/01/95	10	54.	50.8	61.	32.	116.4	10.789	32.1	42.	60.25	61
00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	10	153.5	139.8	190.	65.	1433.289	37.859	68.3	104.	162.25	187.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	10	33.5	34.4	53.	16.	175.156	13.235	16.3	21.25	48.	52.8
00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	10	106.5	107.4	143.	67.	868.267	29.466	67.2	74.25	136.75	142.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	11	7.	8.091	12.	5.	8.091	2.844	5.	6.	11.	12.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	11 ##	1.5	1.727	3.	1.	0.268	0.518	1.1	1.5	2.	2.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	11	5.	6.545	10.	4.	5.273	2.296	4.	5.	9.	9.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/14/94-06/01/95	11	0.25	0.26	0.45	0.11	0.01	0.102	0.122	0.18	0.35	0.438
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	11	0.02	0.022	0.04	0.005	0.	0.014	0.006	0.01	0.04	0.04
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	11	0.19	0.209	0.35	0.09	0.009	0.094	0.092	0.14	0.32	0.35
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/14/94-06/01/95	11	0.5	0.518	0.8	0.3	0.022	0.147	0.32	0.4	0.6	0.78
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/14/94-06/01/95	11	0.08	0.085	0.13	0.05	0.001	0.026	0.052	0.06	0.1	0.128
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	10	19.5	18.2	29.	8.	50.4	7.099	8.1	10.5	24.25	28.6
00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	10	24.5	23.6	38.	12.	85.378	9.24	12.1	14.5	30.75	37.8
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	330.	2221.192	16000.	18.	19238225.531	4386.14	20.	91.	1625.	8060.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	52	2.519	2.613	4.204	1.255	0.74	0.86	1.301	1.948	3.209	3.894
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-06/01/95	11	0.05	0.06	0.1	0.03	0.	0.022	0.032	0.04	0.08	0.096
70507	PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	11	0.05	0.06	0.1	0.03	0.	0.022	0.032	0.04	0.08	0.096

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0059

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	51	0	0.00	30	0	0.00	5	0	0.00	16	0	0.00			
00400 PH	Fresh Chronic	9.	52	0	0.00	31	0	0.00	5	0	0.00	16	0	0.00			
	Other-Lo Lim.	6.5	52	0	0.00	31	0	0.00	5	0	0.00	16	0	0.00			
00403 PH, LAB	Fresh Chronic	9.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
	Other-Lo Lim.	6.5	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	52	32	0.62	32	21	0.66	5	3	0.60	15	8	0.53			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0059

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	9	26.2	25.078	30.4	17.8	20.859	4.567	17.8	20.3	28.6	30.4
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	7.5	7.711	9.1	6.3	0.834	0.913	6.3	7.05	8.55	9.1
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	9	7.53	7.623	8.02	7.34	0.059	0.243	7.34	7.455	7.855	8.02
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	9	7.53	7.571	8.02	7.34	0.062	0.25	7.34	7.455	7.855	8.02
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	9	0.03	0.027	0.046	0.01	0.	0.012	0.01	0.015	0.035	0.046
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	280.	2865.	16000.	20.	31456457.143	5608.606	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	8	2.44	2.576	4.204	1.301	1.059	1.029	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	376.523								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0059

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	8	23.5	23.275	30.8	15.	31.905	5.648	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	8	8.15	8.225	10.2	6.5	1.239	1.113	**	**	**	**
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	8	7.525	7.509	7.78	7.16	0.052	0.229	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	8	7.517	7.455	7.78	7.16	0.056	0.236	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	8	0.03	0.035	0.069	0.017	0.	0.019	**	**	**	**
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	220.	1051.667	3500.	45.	1536525.	1239.566	45.	150.	2050.	3500.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	9	2.342	2.649	3.544	1.653	0.437	0.661	1.653	2.172	3.305	3.544
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	445.221								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0059

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	12	22.45	22.758	28.	15.8	15.314	3.913	16.31	20.2	26.85	27.88
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.05	8.25	9.4	7.	0.674	0.821	7.09	7.525	9.075	9.4
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.6	7.688	8.88	7.05	0.225	0.474	7.137	7.408	7.78	8.685
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.593	7.527	8.88	7.05	0.253	0.503	7.137	7.408	7.78	8.685
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	12	0.026	0.03	0.089	0.001	0.001	0.023	0.003	0.017	0.039	0.076
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	1025.	4840.417	16000.	20.	47323492.992	6879.207	27.5	205.	13350.	16000
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	3.01	3.004	4.204	1.301	0.951	0.975	1.407	2.296	4.086	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1009.93								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0059

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	11	26.5	25.036	29.7	16.6	19.429	4.408	17.52	21.6	29.1	29.62
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	10	6.9	7.17	8.8	6.2	0.698	0.835	6.22	6.625	7.65	8.76
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	11	7.57	7.585	8.21	7.12	0.107	0.327	7.136	7.38	7.71	8.176
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	11	7.57	7.488	8.21	7.12	0.118	0.343	7.136	7.38	7.71	8.176
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	11	0.027	0.033	0.076	0.006	0.	0.021	0.007	0.019	0.042	0.073
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	330.	1480.091	9200.	45.	7193487.291	2682.068	49.6	78.	1700.	7840.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	11	2.519	2.616	3.964	1.653	0.569	0.754	1.689	1.892	3.23	3.847
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	412.927								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0059

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	12	26.95	25.742	29.5	17.2	15.928	3.991	18.13	22.45	28.9	29.38
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.45	8.217	9.3	7.	0.711	0.843	7.03	7.275	9.	9.24
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.915	7.924	8.5	7.59	0.087	0.295	7.59	7.643	8.092	8.446
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.905	7.844	8.5	7.59	0.094	0.307	7.59	7.643	8.092	8.446
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	12	0.012	0.014	0.026	0.003	0.	0.008	0.004	0.008	0.023	0.026
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	150.	729.25	5400.	18.	2315136.932	1521.557	18.6	26.25	707.5	4170.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/14/94-10/26/98	12	2.172	2.218	3.732	1.255	0.63	0.794	1.269	1.389	2.839	3.547
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		165.091							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0060

NPS Station ID: RICH0060

Location: BUOY 163

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: 02-NORTH ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080206045

RF3 Index: 02080207000500.00

Description:

VIRGINIA STATE WATER CONTROL BOARD  
RIVER: JAMES RIVER

LAT/LON: 37.431115/ -77.428615

Agency: 21VASWCB

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): 2-JMS102.76 /VA2-02-X0138/VA2-4X0138

Within Park Boundary: No

Date Created: / /

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 13.820

RF3 Mile Point: 2.49

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.04

On/Off RF1: OFF

On/Off RF3:

INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0060

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/01/75-09/27/83	34	21.75	19.682	30.	4.	70.986	8.425	6.75	9.875	27.275
00070	TURBIDITY, (JACKSON CANDLE UNITS)	07/28/75-07/28/75	1	38.	38.	38.	0.	0.	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	9 ##	0.215	0.347	1.	0.17	0.094	0.307	0.17	0.178	0.483
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-09/27/83	15	233.	245.933	385.	148.	6056.924	77.826	154.6	172.	317.
00300	OXYGEN, DISSOLVED MG/L	05/01/75-09/27/83	35	7.8	8.049	12.9	4.1	3.344	1.829	5.96	6.9	11.08
00310	BOD, 5 DAY, 20 DEG C MG/L	07/28/75-06/28/83	13	1.	1.692	4.	1.	0.897	0.947	1.	1.	3.6
00340	COD, 25N K2CR2O7 MG/L	05/19/80-06/28/83	12	11.5	13.417	33.	5.	67.538	8.218	5.3	6.25	18.5
00400	PH (STANDARD UNITS)	05/01/75-09/27/83	35	7.6	7.74	9.	6.9	0.241	0.491	7.1	7.5	8.58
00400	CONVERTED PH (STANDARD UNITS)	05/01/75-09/27/83	35	7.6	7.529	9.	6.9	0.287	0.536	7.1	7.5	8.58
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/01/75-09/27/83	35	0.025	0.03	0.126	0.001	0.001	0.028	0.003	0.01	0.032
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/83-09/27/83	3	67.	69.667	81.	61.	105.333	10.263	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	3	0.	0.	0.	0.	0.	0.	**	**	**
00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	2	0.	0.	0.	0.	0.	0.	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/19/80-06/28/83	12	131.	150.583	248.	103.	2325.72	48.226	105.4	112.5	189.25
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/19/80-06/28/83	12	32.5	32.	42.	22.	35.455	5.954	22.3	28.5	36.75
00510	RESIDUE, TOTAL FIXED (MG/L)	05/19/80-06/28/83	12	99.	118.583	206.	73.	1897.72	43.563	75.1	89.75	155.75
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/80-09/27/83	4	192.	192.	246.	138.	2394.667	48.935	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/01/75-09/27/83	33	9.	11.288	49.	2.	92.235	9.604	2.2	5.	16.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/01/75-09/27/83	33	2.5	3.848	14.	0.	11.179	3.344	0.	2.	6.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/01/75-06/28/83	30	5.5	7.933	41.	0.	63.651	7.978	0.	4.	12.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/01/75-09/27/83	35	0.2	0.366	3.5	0.05	0.329	0.574	0.05	0.1	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	35	0.01	0.015	0.1	0.	0.	0.017	0.005	0.005	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	35	0.35	0.387	1.3	0.025	0.075	0.275	0.086	0.15	0.48
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	3	1.	1.033	1.2	0.9	0.023	0.153	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/01/75-09/27/83	35	0.5	0.513	1.2	0.05	0.097	0.311	0.2	0.3	0.8
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-09/27/83	3	0.4	0.7	1.4	0.3	0.37	0.608	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-09/27/83	15	0.2	0.247	0.8	0.05	0.037	0.191	0.05	0.1	0.3
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-09/27/83	3	0.4	0.467	0.7	0.3	0.043	0.208	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-09/27/83	15	0.16	0.196	0.6	0.05	0.018	0.135	0.062	0.11	0.26
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-09/27/83	15	5.	5.4	9.	3.	3.114	1.765	3.	4.	7.
00940	CHLORIDE, TOTAL IN WATER MG/L	05/01/75-04/24/79	18	9.	10.556	20.	3.	23.085	4.805	4.8	7.75	13.25
01002	ARSENIC, TOTAL (UG/L AS AS)	05/04/76-10/28/82	3 ##	1.	0.833	1.	0.5	0.083	0.289	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/04/76-10/28/82	3 ##	5.	3.5	5.	0.5	6.75	2.598	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01034	CHROMIUM, TOTAL (UG/L AS CR)	06/04/75-10/28/82	7 ##	5.	3.071	5.	0.5	5.786	2.405	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	06/04/75-10/28/82	7 ##	5.	6.429	10.	5.	5.952	2.44	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	06/04/75-10/28/82	7	3.	4.	8.	1.	7.333	2.708	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	06/04/75-05/22/78	3 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	4 ##	10.	18.75	50.	5.	439.583	20.966	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	06/04/75-10/28/82	7 ##	5.	8.571	20.	5.	30.952	5.563	**	**	**	**
31506	COLIFORM, TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	3	930.	4120.	11000.	430.	35563300.	5963.497	**	**	**	**
31506	LOG COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	3	2.968	3.214	4.041	2.633	0.541	0.735	**	**	**	**
31506	GM COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.			GEOMETRIC MEAN =	1638.506								
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	34	100.	627.147	6300.	43.	1614230.069	1270.524	50.	50.	500.	2250.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	34	2.	2.269	3.799	1.633	0.389	0.623	1.699	1.699	2.699	3.343
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	185.58								
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	4	3.	6.4	17.9	1.7	59.26	7.698	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	07/28/83-10/12/83	4	1.6	2.65	6.5	0.9	6.703	2.589	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/27/83	4	0.05	0.075	0.2	0.	0.009	0.096	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	05/01/75-04/24/79	20	0.1	0.097	0.2	0.05	0.003	0.057	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/01/75-04/24/79	20	0.055	0.085	0.28	0.03	0.004	0.061	0.04	0.05	0.113	0.177
71900	MERCURY, TOTAL (UG/L AS HG)	06/04/75-10/28/82	7 ##	0.15	0.193	0.25	0.15	0.003	0.053	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0060

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	1	0	0.00	1	0	0.00	7	0	0.00	14	0	0.00	0	0.00	0
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	35	0	0.00	14	0	0.00	7	0	0.00	14	1	0.07			
00400	PH	Fresh Chronic	9.	35	1	0.03	14	0	0.00	7	0	0.00	14	0	0.00			
		Other-Lo Lim.	6.5	35	0	0.00	14	0	0.00	7	0	0.00	14	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	35	0	0.00	14	0	0.00	7	0	0.00	14	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	35	0	0.00	14	0	0.00	7	0	0.00	14	0	0.00			
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	3	0	0.00	3	0	0.00									
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	18	0	0.00	7	0	0.00	2	0	0.00	9	0	0.00			
		Drinking Water	250.	18	0	0.00	7	0	0.00	2	0	0.00	9	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00				1	0	0.00	2	0	0.00			
		Drinking Water	50.	3	0	0.00				1	0	0.00	2	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00				1	0	0.00						
		Drinking Water	5.	1 &	0	0.00				1	0	0.00						
01034	CHROMIUM, TOTAL	Drinking Water	100.	7	0	0.00				2	0	0.00	5	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	7	0	0.00				2	0	0.00	5	0	0.00			
01051	LEAD, TOTAL	Drinking Water	1300.	7	0	0.00				2	0	0.00	5	0	0.00			
		Fresh Acute	82.	7	0	0.00				2	0	0.00	5	0	0.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	7	0	0.00				2	0	0.00	5	0	0.00			
		Drinking Water	100.	3	0	0.00				3	0	0.00	5	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00				2	0	0.00	2	0	0.00			
		Drinking Water	100.	4	0	0.00				2	0	0.00	2	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	7	0	0.00				2	0	0.00	5	0	0.00			
		Drinking Water	5000.	7	0	0.00				2	0	0.00	5	0	0.00			
31506	COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	3	1	0.33	3	1	0.33	6	1	0.17	14	6	0.43			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	34	14	0.41	14	7	0.50	1	0	0.00	1	0	0.00			
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00				1	0	0.00	1	0	0.00			
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	2	0	0.00				1	0	0.00	1	0	0.00			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	4	2	0.50	3	2	0.67				1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	7	0	0.00				2	0	0.00	5	0	0.00			
		Drinking Water	2.	7	0	0.00				2	0	0.00	5	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/01/75-09/27/83	14	27.1	23.564	30.	4.	61.756	7.859	6.5	21.125	28.475	29.75
00300	OXYGEN, DISSOLVED MG/L	05/01/75-09/27/83	14	7.05	7.079	9.1	5.6	0.943	0.971	5.75	6.225	7.8	8.55
00400	PH (STANDARD UNITS)	05/01/75-09/27/83	14	7.95	7.829	8.5	7.1	0.15	0.387	7.3	7.5	8.05	8.4
00400	CONVERTED PH (STANDARD UNITS)	05/01/75-09/27/83	14	7.947	7.672	8.5	7.1	0.176	0.42	7.3	7.5	8.05	8.4
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/01/75-09/27/83	14	0.011	0.021	0.079	0.003	0.	0.02	0.004	0.009	0.032	0.056
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/01/75-09/27/83	12	9.5	11.708	28.	2.5	63.748	7.984	3.25	5.25	17.	26.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/01/75-09/27/83	12	4.	4.292	14.	0.	15.112	3.887	0.	1.25	6.	11.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/01/75-06/28/83	9	6.	9.	18.	2.	28.75	5.362	2.	5.	13.5	18.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/01/75-09/27/83	14	0.3	0.321	0.7	0.1	0.043	0.208	0.1	0.1	0.525	0.65
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	14	0.01	0.018	0.1	0.	0.001	0.025	0.	0.005	0.02	0.065
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	14	0.4	0.502	1.3	0.15	0.095	0.309	0.21	0.308	0.793	1.05
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/01/75-09/27/83	14	0.5	0.593	1.2	0.2	0.121	0.347	0.2	0.3	0.95	1.15
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	14	175.	940.929	6300.	43.	3128838.225	1768.852	46.5	100.	900.	4800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	14	2.239	2.441	3.799	1.633	0.444	0.666	1.666	2.	2.947	3.659
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	275.894								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/01/75-09/27/83	7	9.5	10.471	18.2	5.6	17.466	4.179	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/01/75-09/27/83	7	11.	10.371	12.9	7.5	4.062	2.016	**	**	**	**
00400	PH (STANDARD UNITS)	05/01/75-09/27/83	7	7.5	7.457	7.7	6.9	0.073	0.27	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/01/75-09/27/83	7	7.5	7.367	7.7	6.9	0.082	0.287	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/01/75-09/27/83	7	0.032	0.043	0.126	0.02	0.001	0.037	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/01/75-09/27/83	7	6.	13.571	49.	2.	276.619	16.632	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/01/75-09/27/83	7	2.	4.143	8.	2.	7.476	2.734	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/01/75-06/28/83	7	4.	9.429	41.	0.	209.952	14.49	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/01/75-09/27/83	7	0.5	0.786	3.5	0.1	1.461	1.209	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	7	0.02	0.021	0.04	0.	0.005	0.012	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	7	0.45	0.431	0.8	0.09	0.064	0.253	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/01/75-09/27/83	7	0.7	0.557	0.8	0.2	0.076	0.276	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	6 ##	50.	125.	500.	50.	33750.	183.712	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	6 ##	1.699	1.866	2.699	1.699	0.167	0.408	**	**	**	**
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	73.39								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/01/75-09/27/83	13	22.	20.462	30.	6.	51.848	7.201	6.8	17.3	25.6	29.6
00300	OXYGEN, DISSOLVED MG/L	05/01/75-09/27/83	14	8.2	7.857	9.4	4.1	1.969	1.403	5.35	6.975	8.925	9.35
00400	PH (STANDARD UNITS)	05/01/75-09/27/83	14	7.55	7.793	9.	7.	0.393	0.627	7.05	7.375	8.25	8.85
00400	CONVERTED PH (STANDARD UNITS)	05/01/75-09/27/83	14	7.547	7.506	9.	7.	0.481	0.694	7.05	7.375	8.25	8.85
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/01/75-09/27/83	14	0.028	0.031	0.1	0.001	0.001	0.03	0.001	0.006	0.042	0.09
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/01/75-09/27/83	14	8.	9.786	20.	2.	40.027	6.327	2.5	4.	15.	20.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/01/75-09/27/83	14	2.	3.321	10.	0.	10.754	3.279	0.	0.375	6.	9.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/01/75-06/28/83	14	5.	6.5	14.	0.	23.192	4.816	0.	3.25	12.	13.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/01/75-09/27/83	14	0.2	0.2	0.4	0.	0.05	0.016	0.127	0.05	0.05	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	14	0.01	0.01	0.03	0.	0.005	0.	0.007	0.005	0.005	0.025
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/01/75-09/27/83	14	0.155	0.25	0.6	0.025	0.037	0.192	0.038	0.087	0.435	0.555
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/01/75-09/27/83	14	0.3	0.411	0.9	0.05	0.078	0.279	0.075	0.2	0.575	0.9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	14	100.	528.571	2700.	50.	722967.033	850.275	50.	50.	625.	2250.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/01/75-09/27/83	14	2.	2.269	3.431	1.699	0.372	0.61	1.699	1.699	2.659	3.343
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	185.775								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0061

NPS Station ID: RICH0061  
 Location: RT. 5 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206142600.51  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: FOURMILE CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: FOURMILE, VA

LAT/LON: 37.432781/ -77.325838

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-FOM003.60  
 Within Park Boundary: No

Date Created: 05/19/90

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.53

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.21

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0061

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/17/90-11/19/98	44	13.7	13.991	25.5	0.9	44.739	6.689	5.25	8.85	19.6	23.45
00070 TURBIDITY, (JACKSON CANDLE UNITS)	07/19/90-01/02/92	6	12.	10.733	14.1	6.	12.567	3.545	**	**	**	**
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	09/12/94-11/19/98	21	10.6	14.648	65.8	3.	174.776	13.22	4.92	8.05	17.7	25.4
00080 COLOR (PLATINUM-COBALT UNITS)	04/24/91-10/26/92	6	136.5	180.333	494.	67.	25545.467	159.829	**	**	**	**
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/30/92-11/19/98	23	65.	67.435	99.	42.	181.893	13.487	51.	60.	79.	86.2
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/90-11/19/98	35	58.	59.743	85.	39.	120.255	10.966	48.2	53.	68.	78.
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-11/19/98	41	9.2	9.039	12.7	4.3	3.977	1.994	6.34	7.45	10.7	11.5
00300 OXYGEN, DISSOLVED MG/L	07/19/90-07/17/91	5	7.8	8.32	10.8	6.9	2.597	1.612	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	07/19/90-11/19/98	34	1.05	1.515	4.	0.5	0.554	0.744	1.	1.	2.	2.5
00340 COD, 25N K2CR2O7 MG/L	07/19/90-11/19/98	36	20.	21.583	57.	2.5	125.95	11.223	7.	15.25	27.	37.3
00400 PH (STANDARD UNITS)	01/17/90-11/19/98	44	5.57	5.77	7.91	4.26	0.616	0.785	4.825	5.245	6.318	6.785
00400 CONVERTED PH (STANDARD UNITS)	01/17/90-11/19/98	44	5.57	5.261	7.91	4.26	0.881	0.939	4.825	5.245	6.317	6.785
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/17/90-11/19/98	44	2.692	5.489	54.954	0.012	92.334	9.609	0.181	0.486	5.69	14.963
00403 PH, LAB, STANDARD UNITS SU	07/19/90-11/19/98	35	6.	5.963	6.6	5.2	0.154	0.393	5.4	5.7	6.3	6.5
00403 CONVERTED PH, LAB, STANDARD UNITS	07/19/90-11/19/98	35	6.	5.789	6.6	5.2	0.185	0.43	5.4	5.7	6.3	6.5
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/19/90-11/19/98	35	1.	1.624	6.31	0.251	2.381	1.543	0.316	0.501	1.995	3.981
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	34	4.	4.441	28.	1.	21.224	4.607	1.5	2.	5.	7.
00500 RESIDUE, TOTAL (MG/L)	07/19/90-11/19/98	35	65.	67.629	130.	42.	277.417	16.656	49.	57.	73.	89.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	07/19/90-11/19/98	35	26.	27.914	72.	10.	138.787	11.781	15.4	21.	33.	39.4
00510 RESIDUE, TOTAL FIXED (MG/L)	07/19/90-11/19/98	35	39.	39.714	60.	28.	65.092	8.068	29.	33.	44.	52.8
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/19/90-11/19/98	35	7.	8.886	38.	3.	49.163	7.012	4.	4.	10.	19.4
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/19/90-11/19/98	35	3.	3.014	10.	0.5	3.978	1.994	1.3	1.5	4.	5.4
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/19/90-11/19/98	35	4.	5.843	30.	1.	31.453	5.608	1.5	3.	8.	13.8
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/19/90-11/19/98	36 ##	0.02	0.039	0.18	0.02	0.001	0.034	0.02	0.02	0.048	0.093
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	36 ##	0.005	0.008	0.03	0.005	0.	0.006	0.005	0.005	0.005	0.013
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	36	0.29	0.339	1.55	0.04	0.061	0.248	0.164	0.2	0.425	0.54
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/19/90-11/19/98	36	0.5	0.494	1.6	0.2	0.059	0.243	0.3	0.325	0.575	0.7
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/19/90-11/19/98	36	0.04	0.045	0.1	0.01	0.001	0.025	0.01	0.03	0.058	0.093
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/19/90-07/17/91	5	0.02	0.016	0.02	0.01	0.	0.005	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/90-06/24/96	23	6.5	7.504	25.7	2.8	22.97	4.793	3.96	4.9	7.7	13.74
00687 CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	09/12/97-09/12/97	1	36.3	36.3	36.3	36.3	0.	0.	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	36	14.	15.208	35.	0.5	54.02	7.35	7.4	12	17	28
00927 MAGNESIUM, TOTAL (MG/L AS MG)	07/15/92-01/21/93	2	1220.	1220.	1270.	1170.	5000.	70.711	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0061

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00940 CHLORIDE,TOTAL IN WATER MG/L	07/19/90-11/19/98	34	9.	9.221	15.	2.5	6.139	2.478	6.	7.	11.	12.
00945 SULFATE, TOTAL (MG/L AS SO4)	07/19/90-11/19/98	34	6.	5.309	11.	1.	7.606	2.758	2.	2.5	7.	8.5
00951 FLUORIDE, TOTAL (MG/L AS F)	07/19/90-04/19/93	9 ##	0.05	0.059	0.13	0.05	0.001	0.027	0.05	0.05	0.05	0.13
00955 SILICA, DISSOLVED (MG/L AS SI02)	07/19/90-10/26/92	9	8.8	9.433	12.	6.6	3.695	1.922	6.6	8.05	11.6	12.
01002 ARSENIC, TOTAL (UG/L AS AS)	01/17/91-04/19/93	10 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	07/15/92-01/21/93	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01013 BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	01/17/91-04/19/93	10 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	01/17/91-04/19/93	10 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01042 COPPER, TOTAL (UG/L AS CU)	01/17/91-04/19/93	10 ##	5.	6.1	16.	5.	12.1	3.479	5.	5.	5.	14.9
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01045 IRON, TOTAL (UG/L AS FE)	01/17/91-04/19/93	10	1775.	2444.	10000.	524.	7901872.222	2811.027	537.2	758.	2891.5	9289.6
01051 LEAD, TOTAL (UG/L AS PB)	01/17/91-04/19/93	10 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	07/27/92-09/12/97	1	5.	5.	5.	5.	0.	0.	**	**	**	**
01053 MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/12/97-09/12/97	1	8.	8.	8.	8.	0.	0.	**	**	**	**
01055 MANGANESE, TOTAL (UG/L AS MN)	01/17/91-04/19/93	10	56.35	70.19	165.2	40.	1345.59	36.682	40.8	48.075	81.3	157.5
01059 THALLIUM, TOTAL (UG/L AS TL)	07/15/92-01/21/93	2 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	01/17/91-04/19/93	10 ##	5.	6.	15.	5.	10.	3.162	5.	5.	5.	14.
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01078 SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	01/17/91-04/19/93	10	17.	16.3	34.	5.	69.344	8.327	5.	10.25	19.5	32.7
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	07/27/92-09/12/97	1	5.	5.	5.	5.	0.	0.	**	**	**	**
01098 ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	09/12/97-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01108 ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	09/12/97-09/12/97	1	838.	838.	838.	838.	0.	0.	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	01/17/91-04/19/93	10 ##	10.	9.	10.	5.	4.444	2.108	5.	8.75	10.	10.
01148 SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	07/27/92-09/12/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01170 IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/12/97-09/12/97	1	813.	813.	813.	813.	0.	0.	**	**	**	**
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/12/94-11/19/98	21	170.	1634.286	9200.	9.	10237150.314	3199.555	9.	42.5	1200.	9200.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/12/94-11/19/98	21	2.23	2.363	3.964	0.954	0.926	0.962	0.954	1.628	3.078	3.964
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				GEOMETRIC MEAN =	230.422							
31616 FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	07/19/90-04/05/94	15	100.	146.667	700.	50.	28738.095	169.523	50.	50.	200.	460.
31616 LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	07/19/90-04/05/94	15	2.	2.008	2.845	1.699	0.119	0.345	1.699	1.699	2.301	2.624
31616 GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	101.829								
32240 TANNIN AND LIGNIN (MG/L)	01/02/92-04/19/93	4	1.3	1.675	3.3	0.8	1.229	1.109	**	**	**	**
34480 THALLIUM DRY WGT,BOTMG/KG	07/27/92-09/12/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39061 PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	07/27/92-09/12/97	1 ##	35.	35.	35.	35.	0.	0.	**	**	**	**
39333 ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
39351 CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	07/27/92-09/12/97	1 ##	30.	30.	30.	30.	0.	0.	**	**	**	**
39363 DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
39368 DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
39373 DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
39383 DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/27/92-09/12/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
39393 ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
39403 TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	07/27/92-09/12/97	1 ##	55.	55.	55.	55.	0.	0.	**	**	**	**
39413 HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	07/27/92-09/12/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
39526 PCB'S TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	07/27/92-09/12/97	1 ##	15.	15.	15.	15.	0.	0.	**	**	**	**
46570 HARDNESS, CA MG CALCULATED (MG/L ASCACO3)	04/24/91-04/19/93	8	9.	9.25	12.	7.	3.357	1.832	**	**	**	**
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/24/91-11/19/98	32	0.02	0.021	0.05	0.005	0.	0.012	0.007	0.01	0.03	0.04
71900 MERCURY, TOTAL (UG/L AS HG)	01/17/91-04/19/93	10 ##	0.15	0.15	0.15	0.15	0.	0.	0.15	0.15	0.15	0.15
71921 MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/27/92-09/12/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
75045 HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	07/27/92-09/12/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
79799 DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	07/27/92-09/12/97	1 ##	70.	70.	70.	70.	0.	0.	**	**	**	**
82007 PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	09/12/97-09/12/97	1	95.58	95.58	95.58	95.58	0.	0.	**	**	**	**
82008 SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	09/12/97-09/12/97	1	4.42	4.42	4.42	4.42	0.	0.	**	**	**	**
82009 SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	09/12/97-09/12/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
82032 CALCIUM - TOTAL UG/L (AS CA)	07/15/92-01/21/93	2	2195.	2195.	2590.	1800.	312050.	558.614	**	**	**	**
82078 TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	04/02/92-04/05/94	8	7.7	9.45	21.	5.7	26.491	5.147	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0061

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	6	0	0.00	2	0	0.00	3	0	0.00	1	0	0.00	
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	21	1	0.05	7	0	0.00	6	1	0.17	8	0	0.00	
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	41	0	0.00	11	0	0.00	14	0	0.00	16	0	0.00	
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	5	0	0.00	2	0	0.00	2	0	0.00	1	0	0.00	
00400 PH	Fresh Chronic	9.	44	0	0.00	13	0	0.00	15	0	0.00	16	0	0.00	
	Other-Lo Lim.	6.5	44	37	0.84	13	9	0.69	15	13	0.87	16	15	0.94	
00403 PH, LAB	Fresh Chronic	9.	35	0	0.00	12	0	0.00	11	0	0.00	12	0	0.00	
	Other-Lo Lim.	6.5	35	34	0.97	12	11	0.92	11	11	1.00	12	12	1.00	
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	36	0	0.00	12	0	0.00	12	0	0.00	12	0	0.00	
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	36	0	0.00	12	0	0.00	12	0	0.00	12	0	0.00	
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	34	0	0.00	12	0	0.00	11	0	0.00	11	0	0.00	
	Drinking Water	250.	34	0	0.00	12	0	0.00	11	0	0.00	11	0	0.00	
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	34	0	0.00	12	0	0.00	11	0	0.00	11	0	0.00	
00951 FLUORIDE, TOTAL AS F	Drinking Water	4.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00	
01002 ARSENIC, TOTAL	Fresh Acute	360.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
	Drinking Water	50.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
01012 BERYLLIUM, TOTAL	Fresh Acute	130.	2	0	0.00	1	0	0.00	1	0	0.00				
	Drinking Water	4.	0 &	0	0.00										
01027 CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00										
	Drinking Water	5.	0 &	0	0.00										
01034 CHROMIUM, TOTAL	Drinking Water	100.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
01042 COPPER, TOTAL	Fresh Acute	18.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
	Drinking Water	1300.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
01051 LEAD, TOTAL	Fresh Acute	82.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
	Drinking Water	15.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
01059 THALLIUM, TOTAL	Fresh Acute	1400.	2	0	0.00	1	0	0.00	1	0	0.00				
	Drinking Water	2.	0 &	0	0.00										
01067 NICKEL, TOTAL	Fresh Acute	1400.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
	Drinking Water	100.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
01092 ZINC, TOTAL	Fresh Acute	120.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
	Drinking Water	5000.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
01147 SELENIUM, TOTAL	Fresh Acute	20.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
	Drinking Water	50.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	21	10	0.48	7	4	0.57	6	3	0.50	8	3	0.38	
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	15	4	0.27	5	1	0.20	6	2	0.33	4	1	0.25	
71900 MERCURY, TOTAL	Fresh Acute	2.4	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
	Drinking Water	2.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00	
82078 TURBIDITY, FIELD	Other-Hi Lim.	50.	8	0	0.00	3	0	0.00	2	0	0.00	3	0	0.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0061

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/17/90-11/19/98	13	22.2	20.6	25.5	13.7	13.505	3.675	14.82	17.45	23.45	25.38
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/90-11/19/98	12	56.5	60.417	78.	51.	94.629	9.728	51.	53.	67.	78.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-11/19/98	11	6.8	7.	9.4	4.3	2.39	1.546	4.48	5.9	8.4	9.3
00310	BOD, 5 DAY, 20 DEG C MG/L	07/19/90-11/19/98	12	1.	1.525	3.	1.	0.617	0.785	1.	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	07/19/90-11/19/98	12	20.	22.375	57.	2.5	249.324	15.79	3.85	8.75	31.5	52.2
00400	PH (STANDARD UNITS)	01/17/90-11/19/98	13	6.22	6.251	7.91	5.26	0.426	0.653	5.356	5.81	6.57	7.382
00400	CONVERTED PH (STANDARD UNITS)	01/17/90-11/19/98	13	6.22	5.92	7.91	5.26	0.545	0.738	5.356	5.81	6.57	7.382
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/17/90-11/19/98	13	0.603	1.202	5.495	0.012	2.421	1.556	0.11	0.269	1.608	4.562
00403	PH, LAB, STANDARD UNITS SU	07/19/90-11/19/98	12	6.3	6.267	6.6	6.	0.039	0.197	6.	6.1	6.45	6.57
00403	CONVERTED PH, LAB, STANDARD UNITS	07/19/90-11/19/98	12	6.3	6.227	6.6	6.	0.04	0.201	6.	6.1	6.45	6.57
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/19/90-11/19/98	12	0.501	0.592	1.	0.251	0.065	0.255	0.271	0.362	0.794	1.
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	12	5.	5.	9.	2.	2.909	1.706	2.6	4.	6.	8.1
00500	RESIDUE, TOTAL (MG/L)	07/19/90-11/19/98	12	64.5	69.167	130.	44.	461.606	21.485	47.3	57.5	72.25	115.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/19/90-11/19/98	12	25.	27.083	72.	10.	257.902	16.059	10.3	18.	30.75	61.2
00510	RESIDUE, TOTAL FIXED (MG/L)	07/19/90-11/19/98	12	40.5	42.083	58.	33.	41.538	6.445	34.5	38.	45.75	54.7
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/19/90-11/19/98	12	6.	7.167	18.	3.	19.97	4.469	3.	4.	9.5	16.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/19/90-11/19/98	12	2.5	2.875	10.	0.5	6.006	2.451	0.8	1.5	3.	8.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/19/90-11/19/98	12	3.5	4.25	10.	1.	9.75	3.122	1.15	1.5	7.5	9.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/19/90-11/19/98	12 ##	0.02	0.044	0.18	0.02	0.002	0.046	0.02	0.02	0.058	0.144
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	12 ##	0.005	0.008	0.03	0.005	0.	0.007	0.005	0.005	0.005	0.024
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	12	0.27	0.318	0.65	0.04	0.035	0.187	0.073	0.173	0.49	0.617
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/19/90-11/19/98	12	0.5	0.583	1.6	0.3	0.116	0.341	0.3	0.425	0.6	1.33
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/90-11/19/98	12	0.04	0.049	0.1	0.03	0.	0.022	0.03	0.04	0.05	0.097
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	12	15.	14.875	34.	0.5	82.824	9.101	1.85	8.25	20.	31.3
00940	CHLORIDE, TOTAL IN WATER MG/L	07/19/90-11/19/98	12	10.5	9.75	12.	6.	3.295	1.815	6.3	9.	11.	11.7
00945	SULFATE, TOTAL (MG/L AS SO4)	07/19/90-11/19/98	12	2.5	3.958	8.	1.	6.066	2.463	1.3	2.	6.75	7.7
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/24/91-11/19/98	10	0.02	0.021	0.03	0.005	0.	0.008	0.006	0.018	0.03	0.03

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0061

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/17/90-11/19/98	15	8.3	8.2	17.4	0.9	21.5	4.637	1.2	4.3	11.8	15.18
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/90-11/19/98	11	59.	61.545	85.	39.	182.673	13.516	41.	53.	73.	83.4
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-11/19/98	14	10.4	10.25	12.7	7.3	2.29	1.513	7.65	9.275	11.2	12.5
00310	BOD, 5 DAY, 20 DEG C MG/L	07/19/90-11/19/98	10	1.8	1.71	4.	0.5	0.952	0.976	0.55	1.	2.	3.8
00340	COD, .25N K2CR2O7 MG/L	07/19/90-11/19/98	11	19.	20.045	38.	2.5	114.223	10.688	3.4	16.	31.	37.
00400	PH (STANDARD UNITS)	01/17/90-11/19/98	15	5.55	5.747	7.41	4.57	0.731	0.855	4.72	5.07	6.45	7.374
00400	CONVERTED PH (STANDARD UNITS)	01/17/90-11/19/98	15	5.55	5.26	7.41	4.57	0.986	0.993	4.72	5.07	6.45	7.374
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/17/90-11/19/98	15	2.818	5.499	26.915	0.039	53.429	7.309	0.042	0.355	8.511	19.848
00403	PH, LAB, STANDARD UNITS SU	07/19/90-11/19/98	11	5.8	5.827	6.5	5.2	0.186	0.431	5.22	5.4	6.2	6.48
00403	CONVERTED PH, LAB, STANDARD UNITS	07/19/90-11/19/98	11	5.8	5.651	6.5	5.2	0.22	0.47	5.22	5.4	6.2	6.48
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/19/90-11/19/98	11	1.585	2.235	6.31	0.316	4.039	2.01	0.333	0.631	3.981	6.05
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	11	4.	5.727	28.	2.	58.018	7.617	2.	2.	5.	24.
00500	RESIDUE, TOTAL (MG/L)	07/19/90-11/19/98	11	64.	66.273	87.	54.	94.418	9.717	54.8	59.	70.	85.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/19/90-11/19/98	11	26.	28.091	38.	19.	43.491	6.595	19.4	21.	35.	37.6
00510	RESIDUE, TOTAL FIXED (MG/L)	07/19/90-11/19/98	11	38.	38.182	52.	28.	46.564	6.824	28.6	32.	42.	50.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/19/90-11/19/98	11	6.	10.	38.	4.	106.	10.296	4.	5.	8.	34.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/19/90-11/19/98	11	3.	3.182	8.	1.	4.314	2.077	1.1	1.5	5.	7.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/19/90-11/19/98	11	3.	6.682	30.	1.5	73.314	8.562	1.6	3.	5.	27.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/19/90-11/19/98	12 ##	0.03	0.037	0.1	0.02	0.001	0.023	0.02	0.02	0.048	0.085
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	12 ##	0.005	0.007	0.02	0.005	0.	0.004	0.005	0.005	0.005	0.017
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	12	0.245	0.28	0.54	0.1	0.016	0.127	0.121	0.185	0.393	0.507
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/19/90-11/19/98	12	0.4	0.408	0.7	0.2	0.023	0.151	0.2	0.3	0.5	0.67
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/90-11/19/98	12	0.045	0.043	0.1	0.01	0.001	0.028	0.01	0.02	0.058	0.094
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	11	14.	15.273	35.	10.	45.418	6.739	10.4	12.	15.	31.2

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0061

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00940	CHLORIDE,TOTAL IN WATER MG/L	07/19/90-11/19/98	11	9.	8.955	13.	2.5	9.423	3.07	3.2	7.	12.	12.8
00945	SULFATE, TOTAL (MG/L AS SO4)	07/19/90-11/19/98	11	7.	6.773	11.	2.	10.768	3.281	2.	2.5	9.	11.
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/24/91-11/19/98	10	0.015	0.019	0.04	0.005	0.	0.012	0.006	0.01	0.03	0.039

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0061

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/17/90-11/19/98	16	13.	14.05	24.4	6.7	25.988	5.098	8.52	10.	17.95	23.42
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/90-11/19/98	12	57.5	57.417	81.	45.	101.356	10.068	45.6	49.5	60.25	77.7
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-11/19/98	16	9.45	9.381	11.6	6.3	2.484	1.576	6.65	8.25	10.525	11.53
00310	BOD, 5 DAY, 20 DEG C MG/L	07/19/90-11/19/98	12	1.05	1.342	2.	1.	0.199	0.446	1.	1.	1.925	2.
00340	COD, 25N K2CR2O7 MG/L	07/19/90-11/19/98	13	21.	22.154	37.	13.	40.474	6.362	13.8	18.5	26.5	33.8
00400	PH (STANDARD UNITS)	01/17/90-11/19/98	16	5.39	5.399	6.98	4.26	0.396	0.63	4.533	5.055	5.713	6.35
00400	CONVERTED PH (STANDARD UNITS)	01/17/90-11/19/98	16	5.39	5.048	6.98	4.26	0.528	0.727	4.533	5.055	5.712	6.35
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/17/90-11/19/98	16	4.074	8.962	54.954	0.105	184.096	13.568	0.614	1.976	8.812	32.157
00403	PH, LAB, STANDARD UNITS SU	07/19/90-11/19/98	12	5.75	5.783	6.3	5.4	0.114	0.338	5.4	5.425	6.125	6.3
00403	CONVERTED PH, LAB, STANDARD UNITS	07/19/90-11/19/98	12	5.747	5.679	6.3	5.4	0.126	0.355	5.4	5.425	6.125	6.3
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/19/90-11/19/98	12	1.79	2.097	3.981	0.501	1.843	1.358	0.501	0.788	3.776	3.981
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	11	2.	2.545	6.	1.	2.673	1.635	1.	1.	3.	5.8
00500	RESIDUE, TOTAL (MG/L)	07/19/90-11/19/98	12	68.	67.333	95.	42.	305.515	17.479	44.1	50.75	82.25	94.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/19/90-11/19/98	12	28.	28.583	54.	13.	130.265	11.413	14.2	19.25	36.75	49.8
00510	RESIDUE, TOTAL FIXED (MG/L)	07/19/90-11/19/98	12	39.	38.75	60.	29.	107.841	10.385	29.	29.	43.5	58.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/19/90-11/19/98	12	8.	9.583	20.	4.	30.629	5.534	4.	5.	13.25	19.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/19/90-11/19/98	12	3.	3.	6.	1.	2.318	1.523	1.15	1.625	4.	5.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/19/90-11/19/98	12	5.	6.667	15.	3.	16.606	4.075	3.	3.25	9.5	14.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/19/90-11/19/98	12 ##	0.02	0.038	0.12	0.02	0.001	0.033	0.02	0.02	0.04	0.111
00615	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	12 ##	0.005	0.008	0.03	0.005	0.	0.007	0.005	0.005	0.01	0.024
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/19/90-11/19/98	12	0.32	0.418	1.55	0.2	0.133	0.364	0.206	0.255	0.415	1.22
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/19/90-11/19/98	12	0.5	0.492	0.9	0.3	0.032	0.178	0.3	0.325	0.575	0.84
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/90-11/19/98	12	0.035	0.042	0.1	0.01	0.001	0.026	0.01	0.023	0.06	0.088
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/90-11/19/98	13	13.	15.462	28.	6.	43.603	6.603	7.6	11.	18.5	28.
00940	CHLORIDE,TOTAL IN WATER MG/L	07/19/90-11/19/98	11	9.	8.909	15.	6.	6.691	2.587	6.2	7.	9.	14.4
00945	SULFATE, TOTAL (MG/L AS SO4)	07/19/90-11/19/98	11	6.	5.318	7.	2.	3.114	1.765	2.1	4.	7.	7.
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/24/91-11/19/98	12	0.02	0.023	0.05	0.005	0.	0.015	0.007	0.01	0.038	0.047

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0062

NPS Station ID: RICH0062  
Location: VIMS STATION J81 - JAMES RIVER  
Station Type: /TYP/A/AMBNT/STREAM  
RMI-Indexes:  
RMI-Miles:  
HUC: 02080206  
Major Basin: NORTH ATLANTIC  
Minor Basin: JAMES RIVER  
RF1 Index: 02080206045  
RF3 Index: 02080206004508.68  
Description:

LAT/LON: 37.433337/ -77.433337

Agency: CHESBAY  
FIPS State/County: 51087 VIRGINIA/HENRICO  
STORET Station ID(s): XPL6040  
Within Park Boundary: No

Date Created: 01/29/83

Depth of Water: 0  
Elevation: 0  
RF1 Mile Point: 13.930  
RF3 Mile Point: 10.75

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 0.00  
Distance from RF3: 0.03

On/Off RF1: OFF  
On/Off RF3:

## Parameter Inventory for Station: RICH0062

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0063

NPS Station ID: RICH0063  
 Location: TURKEY ISLAND CREEK, WARRINER ROAD  
 Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:  
 RMI-Miles:

HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22

Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: TURKEY ISLAND CREEK SECTION: 07 TOPO MAP #: 0141 TOPO MAP NAME: ROXBURY, VA

LAT/LON: 37.436670/ -77.216670

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-TIC009.23  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

### Parameter Inventory for Station: RICH0063

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-12/09/94	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/09/94-12/09/94	1	79.	79.	79.	79.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-12/09/94	1	8.3	8.3	8.3	8.3	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.22	6.22	6.22	6.22	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/09/94-12/09/94	1	6.22	6.22	6.22	6.22	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/09/94-12/09/94	1	0.603	0.603	0.603	0.603	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0063

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00			1	0	0.00			
00400	PH	Fresh Chronic	9.	1	0	0.00			1	0	0.00			
		Other-Lo Lim.	6.5	1	1	1.00			1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0064

NPS Station ID: RICH0064

Location: BUOY 165-AT FALLING CREEK-(CHESTERFIELD COUNTY)

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: 02-NORTH-ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080206045

RF3 Index: 02080206004103.91

Description:

VIRGINIA STATE WATER CONTROL BOARD  
RIVER: JAMES RIVER

INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
SECTION: 02

TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.436948/ -77.427782

Agency: 21VASWCB

FIPS State/County: 51041 VIRGINIA/CHESTERFIELD

STORET Station ID(s): 2-JMS103.15

Within Park Boundary: No

Date Created: 12/07/84

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 14.270

RF3 Mile Point: 4.81

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.28

On/Off RF1: OFF

On/Off RF3:

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0064

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	53	24.9	24.138	30.8	14.7	20.469	4.524	16.34	21.	28.1	29.32
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	11	4.9	5.436	8.8	3.5	2.767	1.663	3.6	4.	6.4	8.54
00078	TRANSPARENCY, SECCHI DISC (METERS)	07/28/83-10/12/83	6 ##	0.193	0.193	0.23	0.17	0.001	0.023	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/20/83-10/26/98	49	253.	260.612	502.	111.	8072.117	89.845	158.	186.5	322.	394.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	11	260.	259.182	422.	134.	5841.364	76.429	139.	218.	292.	399.4
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	50	8.	8.152	10.4	6.7	0.635	0.797	7.12	7.675	8.625	9.48
00300	OXYGEN, DISSOLVED MG/L	09/20/83-10/03/83	2	7.4	7.4	7.9	6.9	0.5	0.707	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	07/14/94-06/01/95	11	1.1	0.927	1.7	0.5	0.192	0.438	0.5	0.5	1.3	1.62
00400	PH (STANDARD UNITS)	09/20/83-10/26/98	53	7.75	7.759	8.48	7.05	0.097	0.312	7.34	7.535	7.985	8.2
00400	CONVERTED PH (STANDARD UNITS)	09/20/83-10/26/98	53	7.75	7.653	8.48	7.05	0.109	0.33	7.34	7.535	7.985	8.2
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/83-10/26/98	53	0.018	0.022	0.089	0.003	0.	0.017	0.006	0.01	0.029	0.046
00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	10	7.45	7.36	7.7	6.8	0.125	0.353	6.8	7.025	7.7	7.7
00403	CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	10	7.447	7.22	7.7	6.8	0.147	0.383	6.8	7.025	7.7	7.7
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	10	0.036	0.06	0.158	0.02	0.003	0.055	0.02	0.02	0.099	0.158
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/83-06/01/95	12	56.5	55.	74.	33.	160.909	12.685	33.3	46.75	62.25	73.1
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/20/83-10/03/83	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	10	164.5	150.1	268.	47.	3928.767	62.68	50.3	94.25	179.	260.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	10	29.	33.9	78.	15.	372.544	19.301	15.2	18.5	45.	74.7
00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	10	122.5	116.2	190.	28.	2334.4	48.316	31.5	74.25	149.5	186.1
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	09/20/83-10/03/83	2	162.	162.	202.	122.	3200.	56.569	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/20/83-06/01/95	14	6.	6.607	10.	2.5	7.315	2.705	3.25	4.	10.	10.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/83-06/01/95	14 ##	1.5	1.714	3.	1.	0.297	0.545	1.	1.5	2.	2.75
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	11	5.	4.773	8.	1.5	5.268	2.295	1.6	3.	7.	8.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/20/83-06/01/95	14	0.24	0.285	0.8	0.12	0.037	0.192	0.125	0.15	0.308	0.7
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	09/20/83-06/01/95	13	0.02	0.019	0.04	0.	0.	0.015	0.	0.008	0.035	0.04
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	09/20/83-06/01/95	13	0.24	0.271	0.7	0.04	0.044	0.211	0.048	0.12	0.315	0.7
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	09/20/83-10/03/83	2	0.9	0.9	0.9	0.9	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/20/83-06/01/95	13	0.5	0.6	1.2	0.4	0.063	0.252	0.4	0.4	0.7	1.12
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/20/83-10/03/83	2	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/20/83-06/01/95	13	0.09	0.132	0.4	0.05	0.015	0.121	0.054	0.065	0.125	0.4
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	09/20/83-10/03/83	2	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/20/83-10/03/83	2	0.4	0.4	0.4	0.4	0.4	0.	0.	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0064

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	09/20/83-07/14/94	3	7.	7.7	13.1	3.	25.87	5.086	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	10	24.5	27.4	54.	8.	177.822	13.335	8.6	20.	36.75	52.8
00945 SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	10	31.	28.7	42.	13.	93.567	9.673	13.3	19.	37.25	41.6
31506 COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	09/20/83-10/03/83	2	2765.	2765.	4600.	930.	6734450.	2595.082	**	**	**	**
31506 LOG COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	09/20/83-10/03/83	2	3.316	3.316	3.663	2.968	0.241	0.491	**	**	**	**
31506 GM COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	GEOMETRIC MEAN =		2068.333									
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	52	490.	2546.192	16000.	9.	22634136.276	4757.535	27.5	147.5	1700.	13960.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	52	2.69	2.712	4.204	0.954	0.739	0.86	1.407	2.167	3.23	4.132
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		515.596									
31616 FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/20/83-10/03/83	2	467.	467.	930.	4.	428738.	654.781	**	**	**	**
31616 LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/20/83-10/03/83	2	1.785	1.785	2.968	0.602	2.8	1.673	**	**	**	**
31616 GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		60.992									
32209 CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/30/83-10/03/83	3	13.2	11.8	21.1	1.1	101.47	10.073	**	**	**	**
32218 PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/30/83-10/03/83	3	7.9	5.6	8.3	0.6	18.79	4.335	**	**	**	**
50060 CHLORINE, TOTAL RESIDUAL (MG/L)	09/20/83-10/03/83	2	0.15	0.15	0.2	0.1	0.005	0.071	**	**	**	**
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	11	0.05	0.061	0.1	0.04	0.001	0.023	0.04	0.04	0.08	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0064

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00			
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00	2	0	0.00									
00400 PH	Fresh Chronic	9.	53	0	0.00	33	0	0.00	5	0	0.00	15	0	0.00			
	Other-Lo Lim.	6.5	53	0	0.00	33	0	0.00	5	0	0.00	15	0	0.00			
00403 PH, LAB	Fresh Chronic	9.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
	Other-Lo Lim.	6.5	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	13	0	0.00	9	0	0.00	1	0	0.00	3	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	13	0	0.00	9	0	0.00	1	0	0.00	3	0	0.00			
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	2	0	0.00	2	0	0.00									
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
31506 COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	2	1	0.50	2	1	0.50									
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	52	36	0.69	32	21	0.66	5	3	0.60	15	12	0.80			
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	1	0.50	2	1	0.50									
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	2	2	1.00	2	2	1.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1983 - Station RICH0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	2	22.5	22.5	25.5	19.5	18.	4.243	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/83-10/26/98	2	7.8	7.8	8.	7.6	0.08	0.283	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/83-10/26/98	2	7.755	7.755	8.	7.6	0.084	0.29	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/83-10/26/98	2	0.018	0.018	0.025	0.01	0.	0.011	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	9	26.6	25.222	30.8	17.9	20.082	4.481	17.9	20.9	28.75	30.8
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	7.9	7.911	8.8	6.7	0.496	0.704	6.7	7.35	8.6	8.8
00400	PH (STANDARD UNITS)	09/20/83-10/26/98	9	7.74	7.776	8.12	7.53	0.041	0.202	7.53	7.595	7.965	8.12
00400	CONVERTED PH (STANDARD UNITS)	09/20/83-10/26/98	9	7.74	7.737	8.12	7.53	0.043	0.207	7.53	7.595	7.965	8.12
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/83-10/26/98	9	0.018	0.018	0.03	0.008	0.	0.008	0.011	0.026	0.03	
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	700.	4801.889	16000.	9.	48794754.111	6985.324	9.	94.	12600.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	2.845	2.836	4.204	0.954	1.273	1.128	0.954	1.967	4.084	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	684.962								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	8	24.25	23.475	30.8	14.7	32.182	5.673	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	8	7.9	8.288	10.4	7.5	1.05	1.025	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/83-10/26/98	8	7.525	7.584	8.27	7.21	0.127	0.357	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/83-10/26/98	8	7.51	7.482	8.27	7.21	0.139	0.373	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/83-10/26/98	8	0.031	0.033	0.062	0.005	0.	0.02	**	**	**	**
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	8	410.	3005.	16000.	140.	30721628.571	5542.709	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	8	2.604	2.87	4.204	2.146	0.567	0.753	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	740.876								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	12	21.85	22.3	27.7	15.6	16.565	4.07	15.81	19.85	26.6	27.67
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.25	8.45	9.9	7.6	0.488	0.699	7.63	8.	8.9	9.78
00400	PH (STANDARD UNITS)	09/20/83-10/26/98	12	7.7	7.705	8.48	7.05	0.139	0.373	7.146	7.408	7.928	8.351
00400	CONVERTED PH (STANDARD UNITS)	09/20/83-10/26/98	12	7.697	7.57	8.48	7.05	0.159	0.399	7.146	7.407	7.928	8.351
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/83-10/26/98	12	0.02	0.027	0.089	0.003	0.001	0.023	0.005	0.012	0.04	0.075
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	595.	3230.667	16000.	20.	35926667.152	5993.886	34.4	180.	1700.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	2.768	2.817	4.204	1.301	0.749	0.865	1.46	2.215	3.23	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	656.005								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	10	24.6	24.58	29.6	16.	20.38	4.514	16.5	21.75	29.2	29.56
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	7.3	7.678	9.5	6.9	0.727	0.853	6.9	7.05	8.15	9.5
00400	PH (STANDARD UNITS)	09/20/83-10/26/98	10	7.665	7.644	8.11	7.27	0.055	0.234	7.283	7.483	7.768	8.078
00400	CONVERTED PH (STANDARD UNITS)	09/20/83-10/26/98	10	7.664	7.59	8.11	7.27	0.058	0.241	7.283	7.482	7.768	8.078
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/83-10/26/98	10	0.022	0.026	0.054	0.008	0.	0.013	0.009	0.017	0.033	0.052
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	1100.	901.727	2200.	9.	491214.818	700.867	11.2	270.	1300.	2100.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	3.041	2.629	3.342	0.954	0.631	0.794	1.024	2.431	3.114	3.32
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	425.133								

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### Annual Analysis for 1998 - Station RICH0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/83-10/26/98	12	26.7	25.508	29.5	16.	19.123	4.373	17.2	22.05	29.	29.47
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.25	8.3	9.6	7.4	0.416	0.645	7.49	7.725	8.775	9.42
00400	PH (STANDARD UNITS)	09/20/83-10/26/98	12	8.02	8.007	8.42	7.7	0.053	0.231	7.721	7.783	8.208	8.363
00400	CONVERTED PH (STANDARD UNITS)	09/20/83-10/26/98	12	8.02	7.955	8.42	7.7	0.056	0.237	7.721	7.782	8.208	8.363
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/83-10/26/98	12	0.01	0.011	0.02	0.004	0.	0.005	0.004	0.006	0.017	0.019
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	195.	1371.5	5400.	20.	4492789.727	2119.62	27.5	53.25	2900.	5400.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	2.286	2.487	3.732	1.301	0.712	0.844	1.407	1.713	3.418	3.732
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	306.93								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0065

NPS Station ID: RICH0065  
 Location: RT. 1 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206047  
 RF3 Index: 02080207101800.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: FALLING CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.439893/ -77.439060

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-FAC000.85 /VA2-07-X0079/VA2-4X0079  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.840  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 7.50  
 Distance from RF3: 0.03

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	274	16.	15.961	31.	0.7	67.039	8.188	4.4	8.725	23.3	26.6
00070 TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-01/02/92	25	6.8	14.308	150.	2.	832.954	28.861	2.6	4.15	12.95	22.
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/06/94-12/07/98	30	6.95	11.563	51.	1.1	160.803	12.681	1.91	4.025	11.9	38.26
00080 COLOR (PLATINUM-COBALT UNITS)	04/24/91-01/21/93	7	64.	75.286	101.	47.	565.238	23.775	**	**	**	**
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	128	87.5	98.648	839.	13.	7171.757	84.686	67.9	77.	98.	113.2
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/11/80-12/07/98	55	93.	95.164	214.	58.	572.658	23.93	74.	83.	103.	118.2
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-12/07/98	45	9.5	9.789	13.8	6.6	4.115	2.028	7.18	8.1	11.55	12.9
00300 OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	228	9.05	9.457	15.4	5.1	3.917	1.979	7.29	8.	10.8	12.2
00310p BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	164	1.	1.752	9.	0.5	1.262	1.124	1.	1.	2.	3.
00340 COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	158	15.	15.873	32.	2.	26.914	5.188	10.	12.	19.	23.1
00400p PH (STANDARD UNITS)	06/28/68-12/07/98	274	7.	7.018	9.02	4.45	0.261	0.511	6.5	6.7	7.3	7.52
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	274	7.	6.531	9.02	4.45	0.498	0.706	6.5	6.7	7.3	7.52
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	274	0.1	0.294	35.481	0.001	4.63	2.152	0.03	0.05	0.2	0.316
00403 PH, LAB, STANDARD UNITS SU	10/24/68-12/07/98	73	6.7	6.708	7.4	5.8	0.094	0.306	6.3	6.5	6.9	7.
00403 CONVERTED PH, LAB, STANDARD UNITS	10/24/68-12/07/98	73	6.7	6.599	7.4	5.8	0.106	0.325	6.3	6.5	6.9	7.
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-12/07/98	73	0.2	0.252	1.585	0.04	0.048	0.219	0.1	0.126	0.316	0.501
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-12/07/98	73	18.	17.973	33.	6.	34.444	5.869	10.	13.	22.5	25.
00500 RESIDUE, TOTAL (MG/L)	10/24/68-12/07/98	73	81.	89.959	229.	38.	1181.179	34.368	65.4	73.	91.	129.2
00505 RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-12/07/98	73	28.	28.178	88.	5.	180.343	13.429	15.	20.	31.	38.6
00510 RESIDUE, TOTAL FIXED (MG/L)	04/28/69-12/07/98	71	54.	60.38	157.	33.	630.982	25.119	41.2	48.	61.	96.
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	166	5.	10.744	163.	0.5	351.854	18.758	2.5	2.5	11.25	22.
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	168	2.5	3.711	27.	0.	13.609	3.689	1.	2.	5.	6.1
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	166	3.	7.798	136.	0.	243.6	15.608	1.5	2.375	7.	17.
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	226 ##	0.05	0.12	10.	0.005	0.445	0.667	0.02	0.05	0.07	0.1
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	226 ##	0.005	0.01	0.29	0.005	0.	0.021	0.005	0.005	0.01	0.02
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	211	0.22	0.242	1.2	0.005	0.018	0.134	0.1	0.15	0.32	0.4
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	223	0.4	0.501	11.79	0.05	0.634	0.796	0.2	0.3	0.5	0.7
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-08/07/80	15	0.16	0.19	0.44	0.025	0.012	0.109	0.058	0.12	0.24	0.386
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	149	0.05	0.069	0.4	0.01	0.002	0.043	0.04	0.05	0.1	0.1
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	110	0.02	0.028	0.36	0.005	0.002	0.042	0.006	0.01	0.03	0.05
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	131	6.	6.654	18.	1.	6.126	2.475	4.	5.	7.4	10.
00900 HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	63	26.	27.73	52.	16.	61.232	7.825	20.	22	30.	41.2
00927 MAGNESIUM, TOTAL (MG/L AS MG)	07/15/92-01/21/93	2	1675.	1675.	1740.	1610.	8450.	91.924	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

## Parameter Inventory for Station: RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00940 CHLORIDE,TOTAL IN WATER MG/L	10/24/88-12/07/98	61	8.	9.754	48.	2.5	43.147	6.569	6.	7.	10.	15.
00945 SULFATE, TOTAL (MG/L AS SO4)	11/29/88-12/07/98	60	7.	7.65	12.	4.	3.791	1.947	5.	6.25	9.	10.
00951 FLUORIDE, TOTAL (MG/L AS F)	11/29/88-04/19/93	27 ##	0.1	0.094	0.25	0.05	0.003	0.051	0.05	0.05	0.13	0.146
00955 SILICA, DISSOLVED (MG/L AS SI02)	04/19/89-01/21/93	24	10.7	10.508	12.8	7.8	1.008	1.004	9.25	9.85	11.2	11.35
01002 ARSENIC, TOTAL (UG/L AS AS)	03/15/71-04/19/93	21 ##	2.5	3.286	5.	0.5	3.214	1.793	0.6	1.75	5.	5.
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-07/27/92	2 ##	3.093	3.093	5.8	0.385	14.661	3.829	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	07/15/92-01/21/93	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/19/93	23 ##	5.	4.413	5.	0.5	2.401	1.55	0.5	5.	5.	5.
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-07/27/92	2 ##	0.125	0.125	0.15	0.1	0.001	0.035	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-07/27/92	2	2.275	2.275	3.2	1.35	1.711	1.308	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/19/93	32 ##	5.	5.797	10.	0.5	4.836	2.199	5.	5.	5.	10.
01042 COPPER, TOTAL (UG/L AS CU)	03/24/70-04/19/93	31 ##	5.	7.355	40.	5.	47.237	6.873	5.	5.	5.	12.4
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-07/27/92	2	1.385	1.385	2.	0.77	0.756	0.87	**	**	**	**
01045 IRON, TOTAL (UG/L AS FE)	06/29/70-04/19/93	13	894.	1024.385	2600.	470.	281140.256	530.227	522.	740.	1181.	2074.
01051 LEAD, TOTAL (UG/L AS PB)	06/29/70-04/19/93	30 ##	5.	7.05	20.	0.5	20.351	4.511	5.	5.	10.	13.9
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-07/27/92	2 ##	1.34	1.34	1.93	0.75	0.696	0.834	**	**	**	**
01055 MANGANESE, TOTAL (UG/L AS MN)	03/24/70-04/19/93	13	80.	131.546	707.9	46.4	31085.358	176.31	47.48	59.	119.95	487.66
01059 THALLIUM, TOTAL (UG/L AS TL)	07/15/92-01/21/93	2 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	7 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	05/18/82-04/19/93	12 ##	5.	5.	5.	0.	0.	0.	5.	5.	5.	5.
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-07/27/92	2 ##	0.85	0.85	0.95	0.75	0.02	0.141	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/19/93	32	10.	12.094	30.	5.	73.765	8.589	5.	5.	20.	29.1
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-07/27/92	2	9.605	9.605	11.1	8.11	4.47	2.114	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	01/17/91-04/19/93	10 ##	10.	9.	10.	5.	4.444	2.108	5.	8.75	10.	10.
31505 COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/28/68-10/27/70	15	2300.	2706.	11000.	230.	9251925.714	3041.698	230.	430.	4300.	8900.
31505 LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/28/68-10/27/70	15	3.362	3.17	4.041	2.362	0.275	0.525	2.362	2.633	3.633	3.942
31505 GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	GEOMETRIC MEAN =		1479.942									
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	10/04/94-12/07/98	29	230.	1084.172	16000.	9.	9325063.291	3053.697	45.	73.	565.	2200.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	10/04/94-12/07/98	29	2.362	2.382	4.204	0.954	0.488	0.699	1.653	1.862	2.748	3.342
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		241.118									
31616 FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	217	100.	508.986	8000.	50.	1468726.745	1211.91	50.	50.	350.	1320.
31616 LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	217	2.	2.183	3.903	1.699	0.339	0.582	1.699	1.699	2.54	3.12
31616 GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		152.352									
32240 TANNIN AND LIGNIN (MG/L)	01/02/92-04/19/93	5	0.9	0.96	1.3	0.6	0.108	0.329	**	**	**	**
34259 DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.	0.	0.	**	**	**	**
34351 ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.	0.	0.	**	**	**	**
34356 ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.	0.	0.	**	**	**	**
34361 ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.	0.	0.	**	**	**	**
34366 ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.	0.	0.	**	**	**	**
34671 PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.	0.	0.	**	**	**	**
38442 DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.	0.	0.	**	**	**	**
38451 DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.	0.	0.	**	**	**	**
38745 2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.	0.	0.	**	**	**	**
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39062 CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065 CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068 CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071 CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300 P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39305 O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310 P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39315 O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320 P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39327 ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330 ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39333 ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-07/27/92	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39337 ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338 BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340 GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350 CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380 DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	04/28/71-03/28/85	4	0.01	0.018	0.05	0.	0.001	0.024	**	**	**	**
39390 ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39400 TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	03/15/71-09/11/80	3	0.	0.047	0.14	0.	0.007	0.081	**	**	**	**
39630	ATRAZINE(ATREX) IN WHOLE WATER SAMPLE (UG/L)	05/08/75-05/18/82	2	0.14	0.14	0.28	0.	0.039	0.198	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/24/91-04/19/93	8	21.	21.875	27.	19.	6.411	2.532	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	74 ##	0.05	0.122	4.7	0.025	0.292	0.54	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	116	0.02	0.065	4.199	0.005	0.151	0.388	0.005	0.01	0.05	0.05
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/19/93	31 ##	0.25	0.273	1.9	0.15	0.096	0.31	0.15	0.15	0.25	0.25
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-07/27/92	2 ##	0.063	0.063	0.1	0.025	0.003	0.053	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
82032	CALCIUM - TOTAL UG/L (AS CA)	07/15/92-01/21/93	2	5700.	5700.	5890.	5510.	72200.	268.701	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	04/02/92-04/05/94	9	9.8	11.6	24.	2.3	67.205	8.198	2.3	4.1	19.35	24.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0065

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	25	1	0.04	4	0	0.00	10	1	0.10	11	0	0.00			
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	30	1	0.03	13	0	0.00	10	1	0.10	7	0	0.00			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	45	0	0.00	17	0	0.00	17	0	0.00	11	0	0.00			
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	228	0	0.00	66	0	0.00	90	0	0.00	72	0	0.00			
00400	PH	Fresh Chronic	9.	274	2	0.01	83	0	0.00	106	2	0.02	85	0	0.00			
		Other-Lo Lim.	6.5	273 &	33	0.12	83	6	0.07	106	17	0.16	84	10	0.12			
00403	PH, LAB	Fresh Chronic	9.	73	0	0.00	21	0	0.00	28	0	0.00	24	0	0.00			
		Other-Lo Lim.	6.5	73	19	0.26	21	4	0.19	28	9	0.32	24	6	0.25			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	226	0	0.00	64	0	0.00	91	0	0.00	71	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	211	0	0.00	61	0	0.00	87	0	0.00	63	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	15	0	0.00	3	0	0.00	4	0	0.00	8	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	61	0	0.00	18	0	0.00	25	0	0.00	18	0	0.00			
		Drinking Water	250.	61	0	0.00	18	0	0.00	25	0	0.00	18	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	60	0	0.00	18	0	0.00	24	0	0.00	18	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	27	0	0.00	4	0	0.00	13	0	0.00	10	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	21	0	0.00	4	0	0.00	7	0	0.00	10	0	0.00			
		Drinking Water	50.	21	0	0.00	4	0	0.00	7	0	0.00	10	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	4.	0 &	0	0.00												
01027	CADMIUM, TOTAL	Fresh Acute	3.9	3 &	0	0.00	1	0	0.00		2	0	0.00					
		Drinking Water	5.	3 &	0	0.00	1	0	0.00		2	0	0.00					
01034	CHROMIUM, TOTAL	Drinking Water	100.	32	0	0.00	5	0	0.00	12	0	0.00	15	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	31	2	0.06	5	0	0.00	12	1	0.08	14	1	0.07			
		Drinking Water	1300.	31	0	0.00	5	0	0.00	12	0	0.00	14	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	30	0	0.00	5	0	0.00	13	0	0.00	12	0	0.00			
		Drinking Water	15.	30	2	0.07	5	0	0.00	13	2	0.15	12	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00			
		Drinking Water	100.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

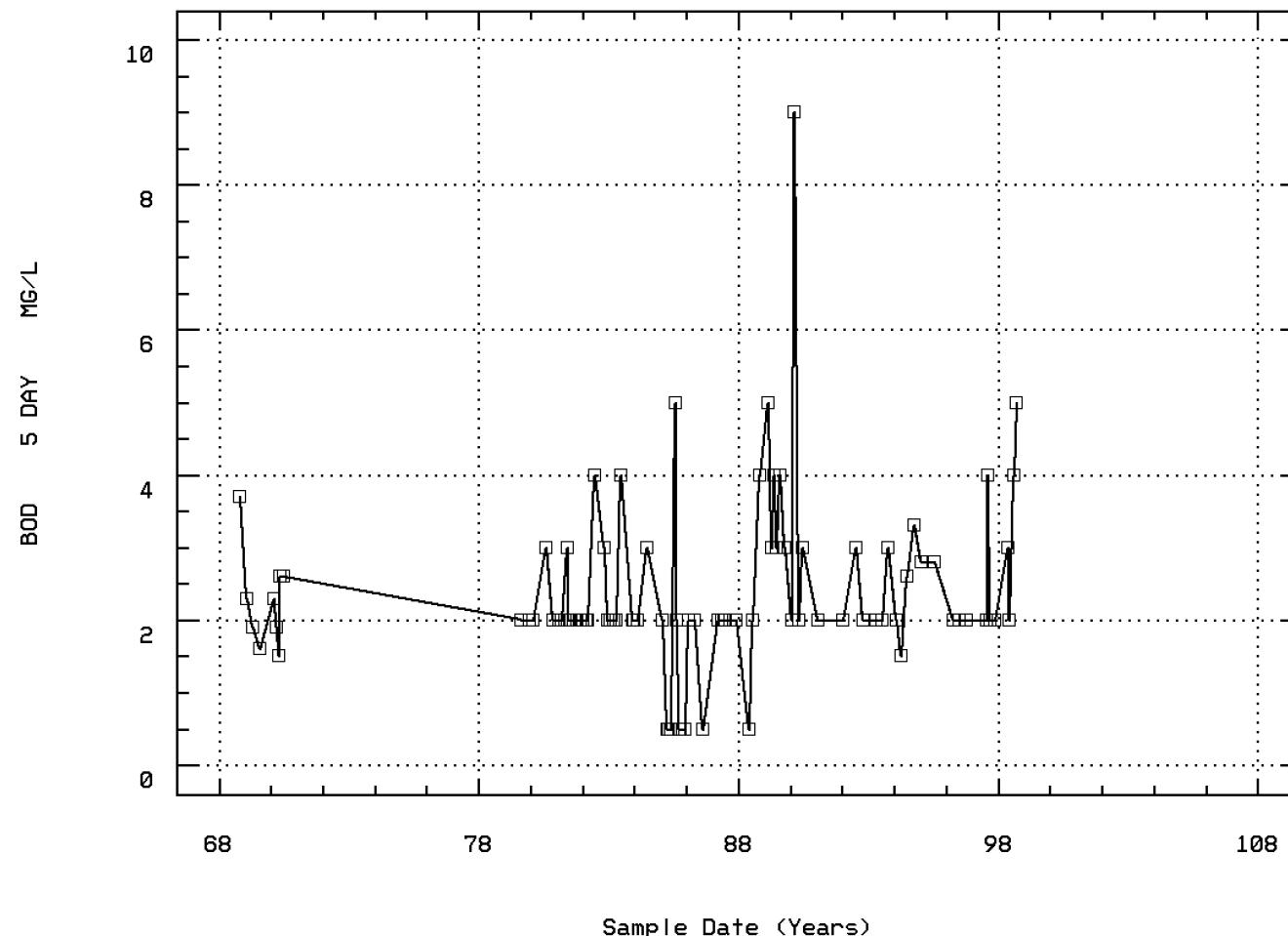
### EPA Water Quality Criteria Analysis for Station: RICH0065

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01067	NICKEL, TOTAL	Fresh Acute	1400.	12	0	0.00	2	0	0.00	5	0	0.00	5	0	0.00
		Drinking Water	100.	12	0	0.00	2	0	0.00	5	0	0.00	5	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	32	0	0.00	5	0	0.00	12	0	0.00	15	0	0.00
		Drinking Water	5000.	32	0	0.00	5	0	0.00	12	0	0.00	15	0	0.00
01147	SELENIUM, TOTAL	Fresh Acute	20.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00
		Drinking Water	50.	10	0	0.00	2	0	0.00	5	0	0.00	3	0	0.00
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	15	8	0.53	7	6	0.86	3	1	0.33	5	1	0.20
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	29	16	0.55	12	6	0.50	10	7	0.70	7	3	0.43
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	217	89	0.41	59	27	0.46	91	34	0.37	67	28	0.42
34356	ENDOSULFAN, BETA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00
34361	ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
		Drinking Water	1.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39300	P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39310	P,P'DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39320	P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	4	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00
39340	GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00							1	0	0.00
		Drinking Water	0.2	1	0	0.00							1	0	0.00
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00			
		Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00			
39380	DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	4	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00
39390	ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
		Drinking Water	2.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39400	TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	1	0	0.00							1	0	0.00
		Drinking Water	3.	1	0	0.00							1	0	0.00
39410	HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00
		Drinking Water	0.4	1	0	0.00							1	0	0.00
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00
		Drinking Water	0.2	1	0	0.00							1	0	0.00
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00			
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	2	0	0.00							2	0	0.00
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00			
		Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00			
39730	2,4-D IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00							1	0	0.00
39760	SILVEX IN WHOLE WATER SAMPLE	Drinking Water	50.	1	0	0.00							1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00						
71900	MERCURY, TOTAL	Fresh Acute	2.4	31	0	0.00	6	0	0.00	13	0	0.00	12	0	0.00
		Drinking Water	2.	31	0	0.00	6	0	0.00	13	0	0.00	12	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	9	0	0.00	3	0	0.00	3	0	0.00	3	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station: RICH0065 Parameter Code: 00310

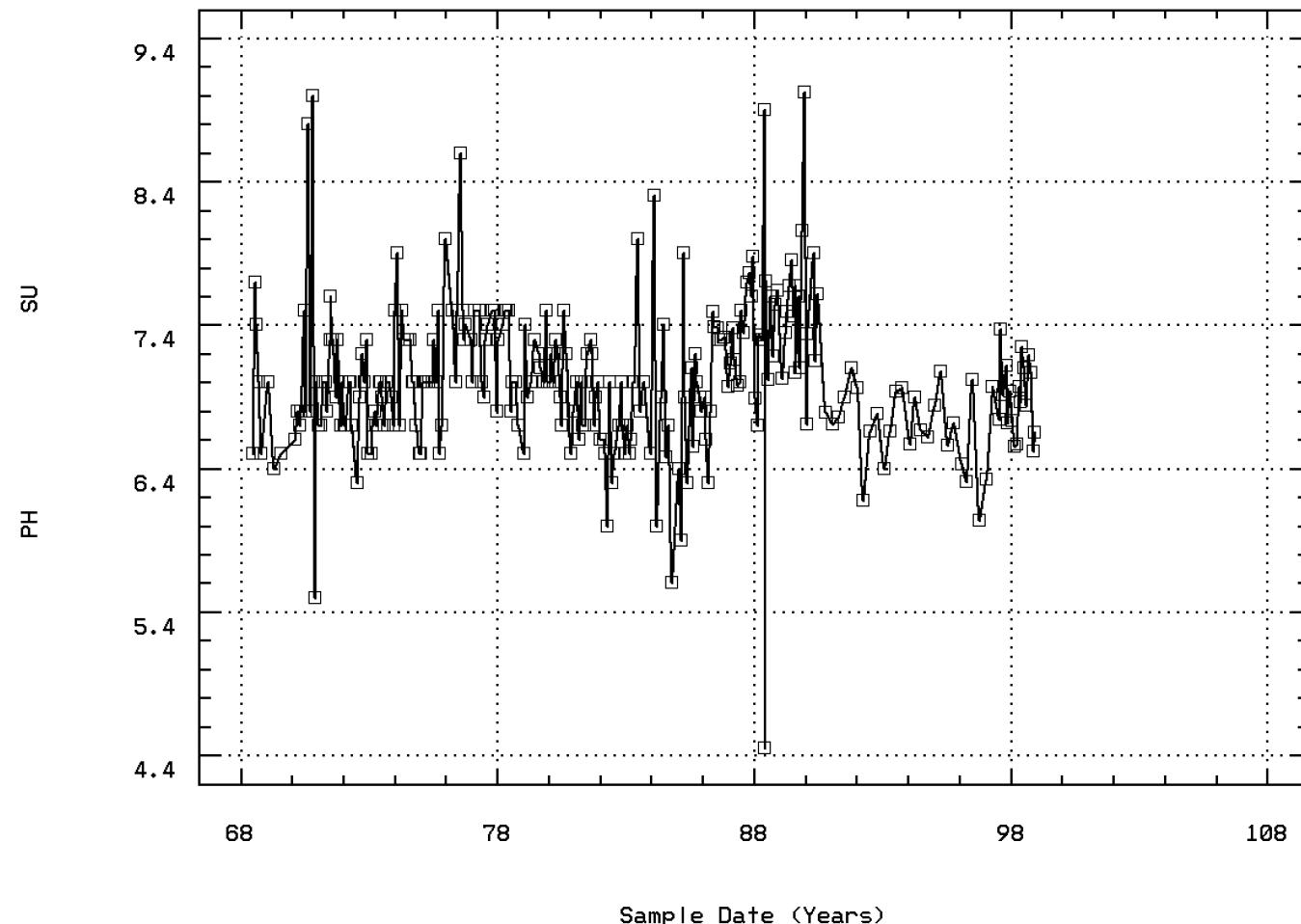
BOD, 5 DAY, 20 DEG C



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00400

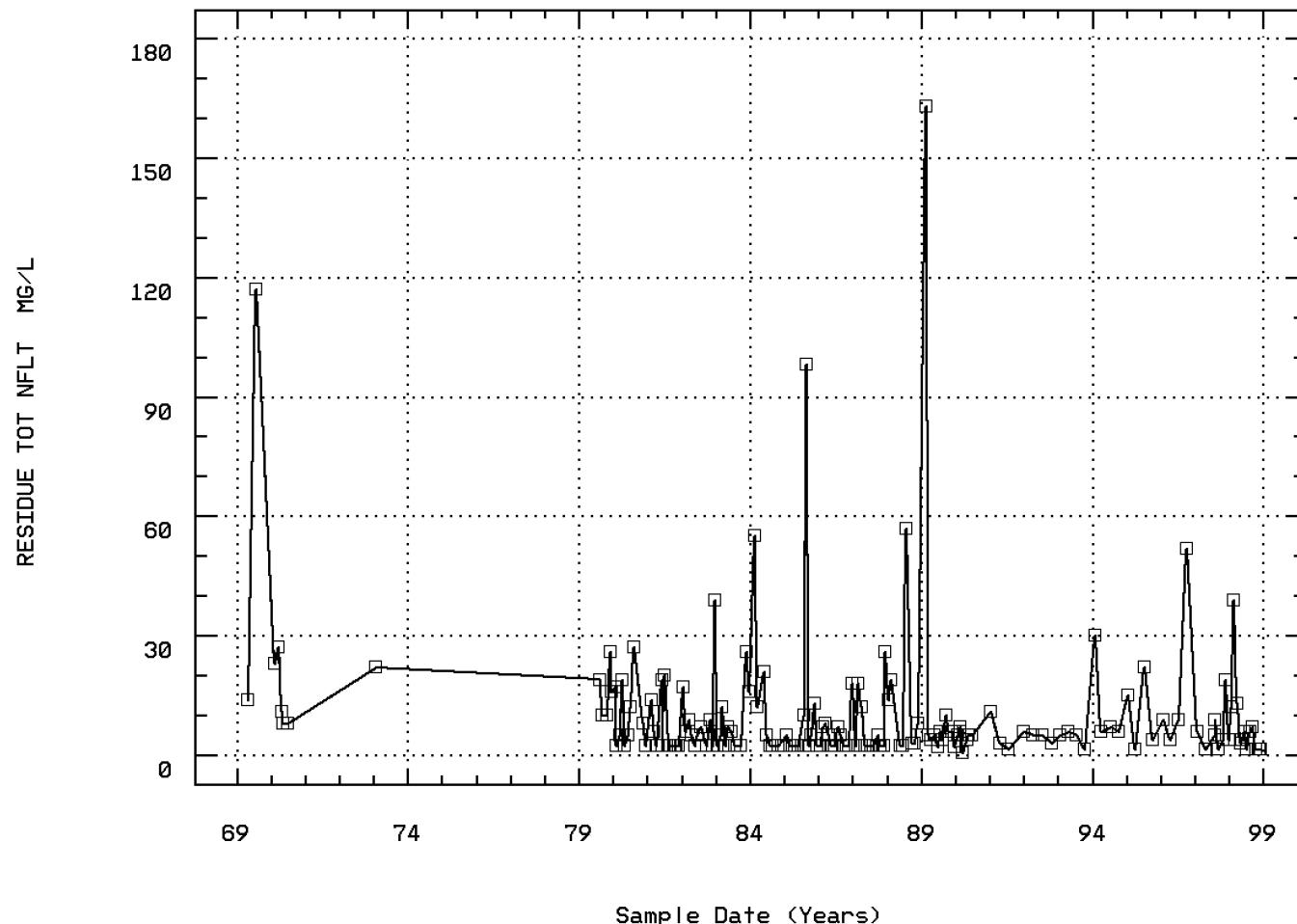
PH (STANDARD UNITS)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00530

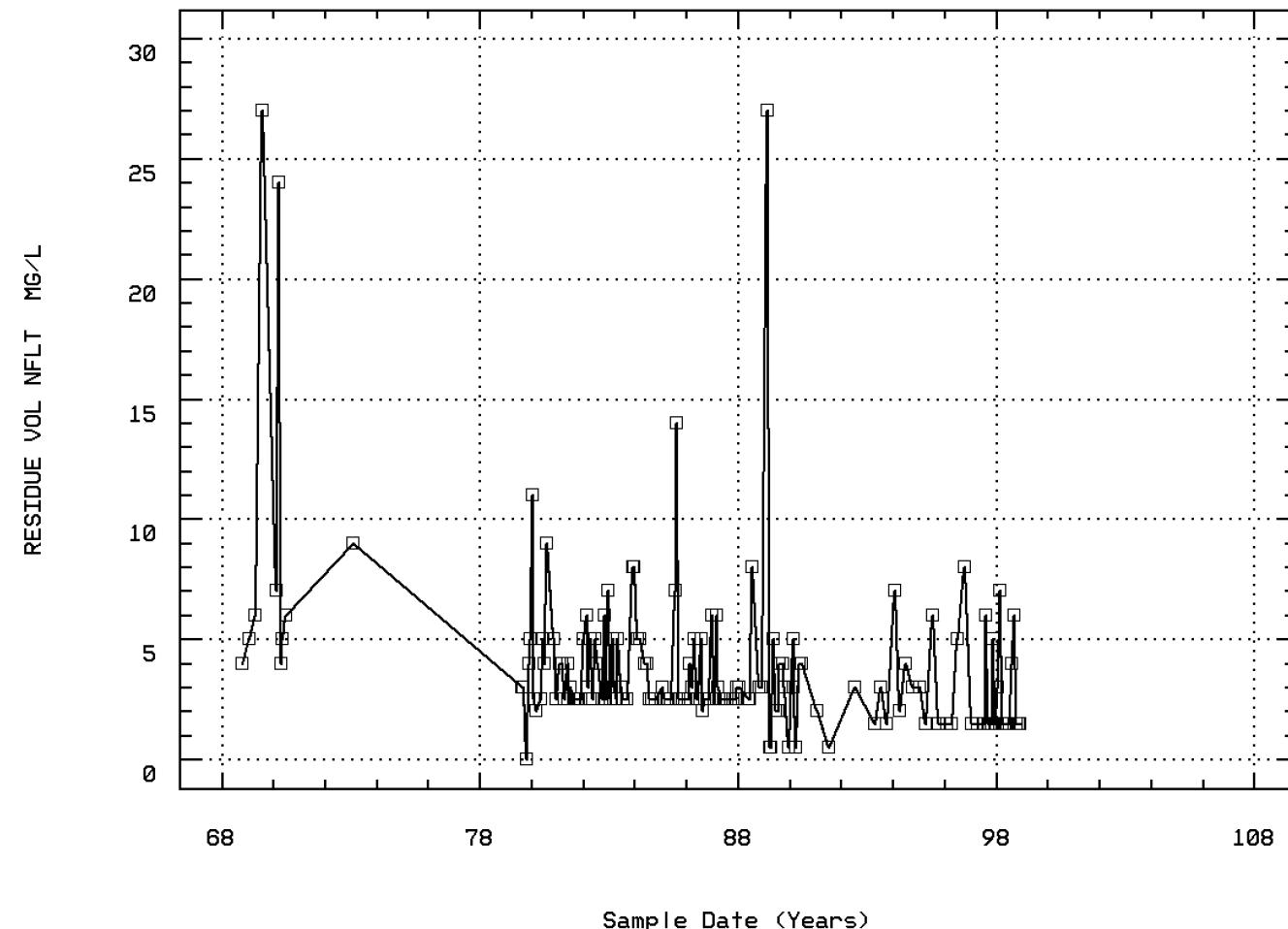
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 1 BRIDGE

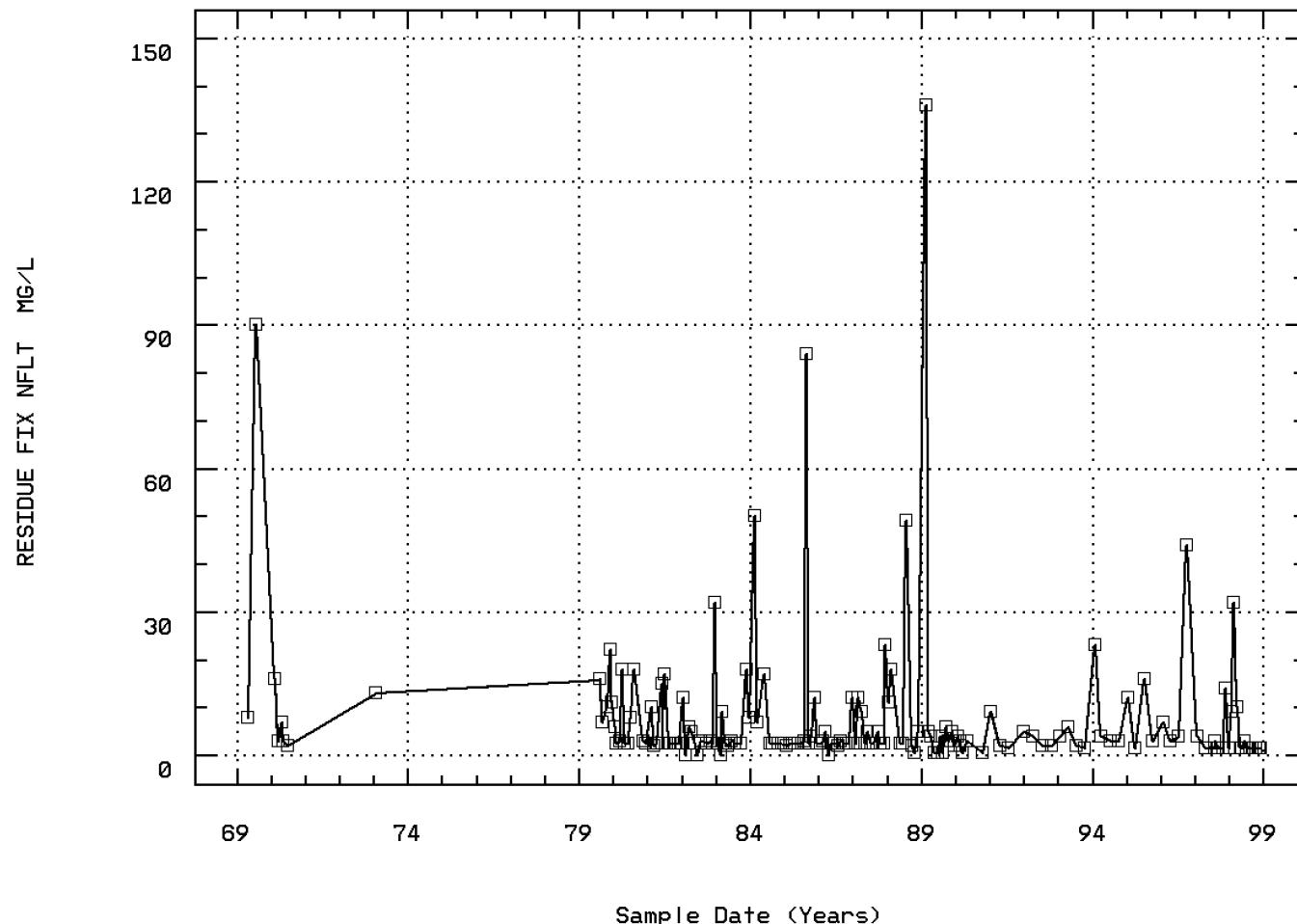
Station: RICH0065 Parameter Code: 00535

RESIDUE, VOLATILE NONFILTRABLE (MG/L)



Station: RICH0065 Parameter Code: 00540

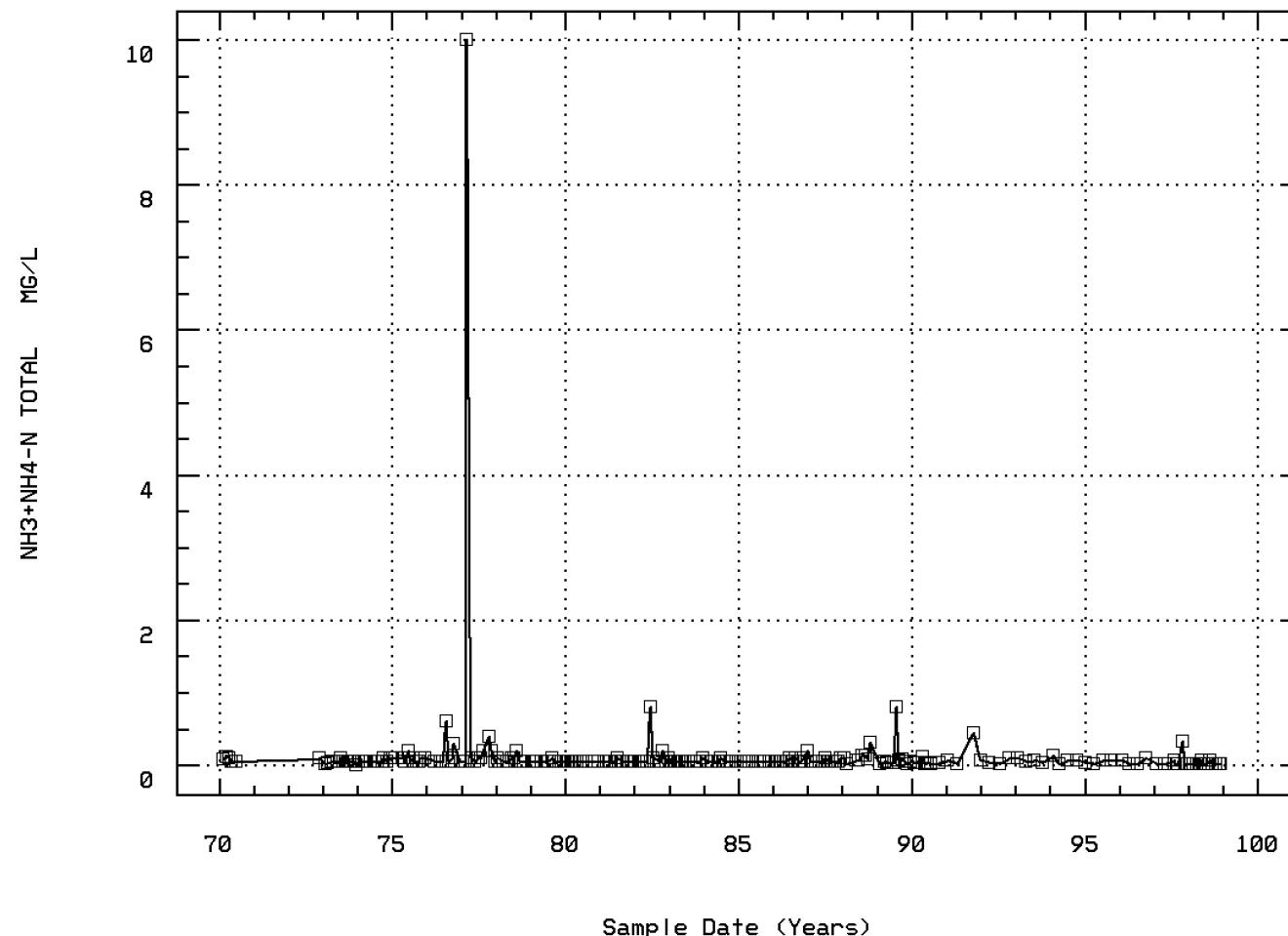
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00610

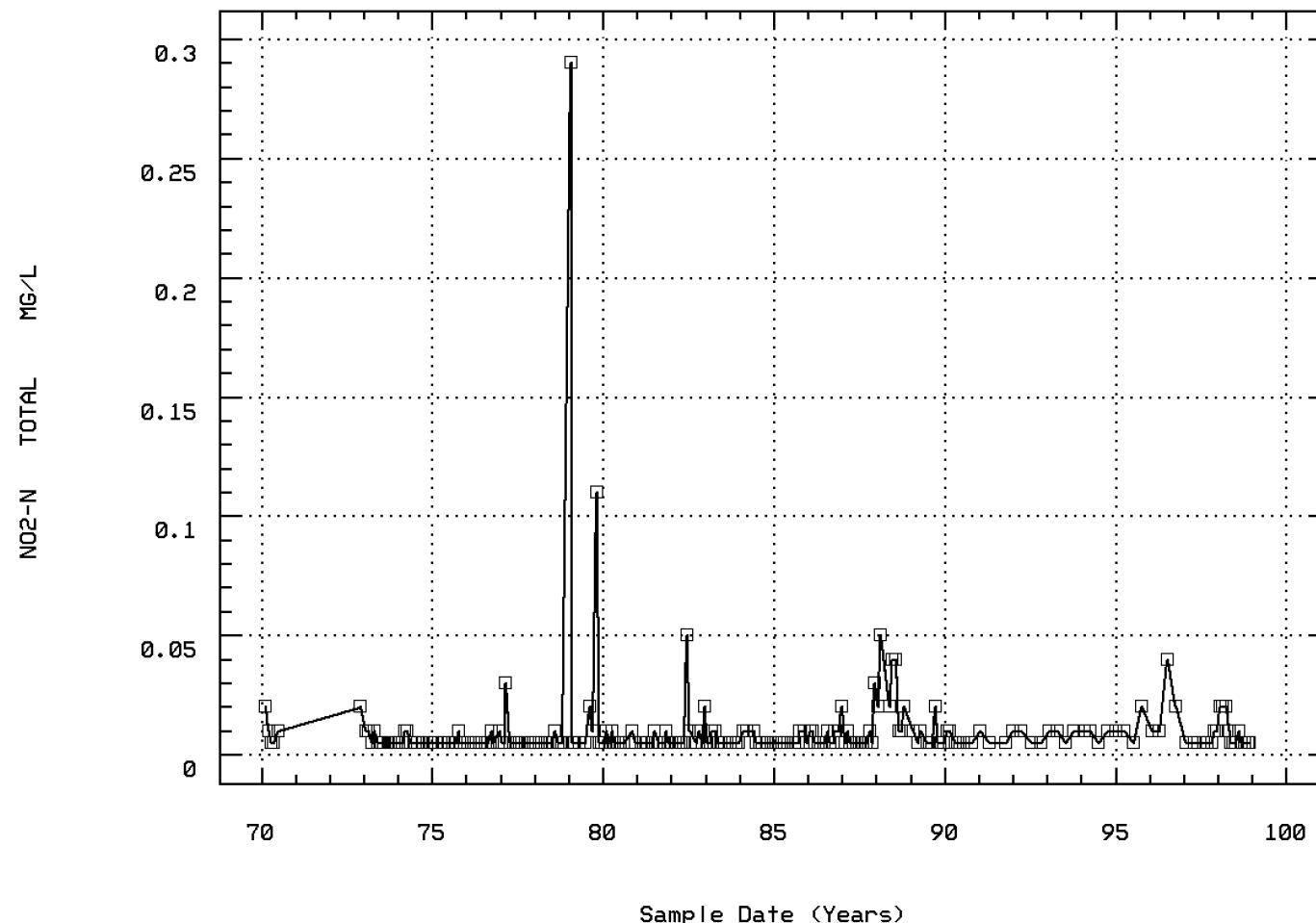
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00615

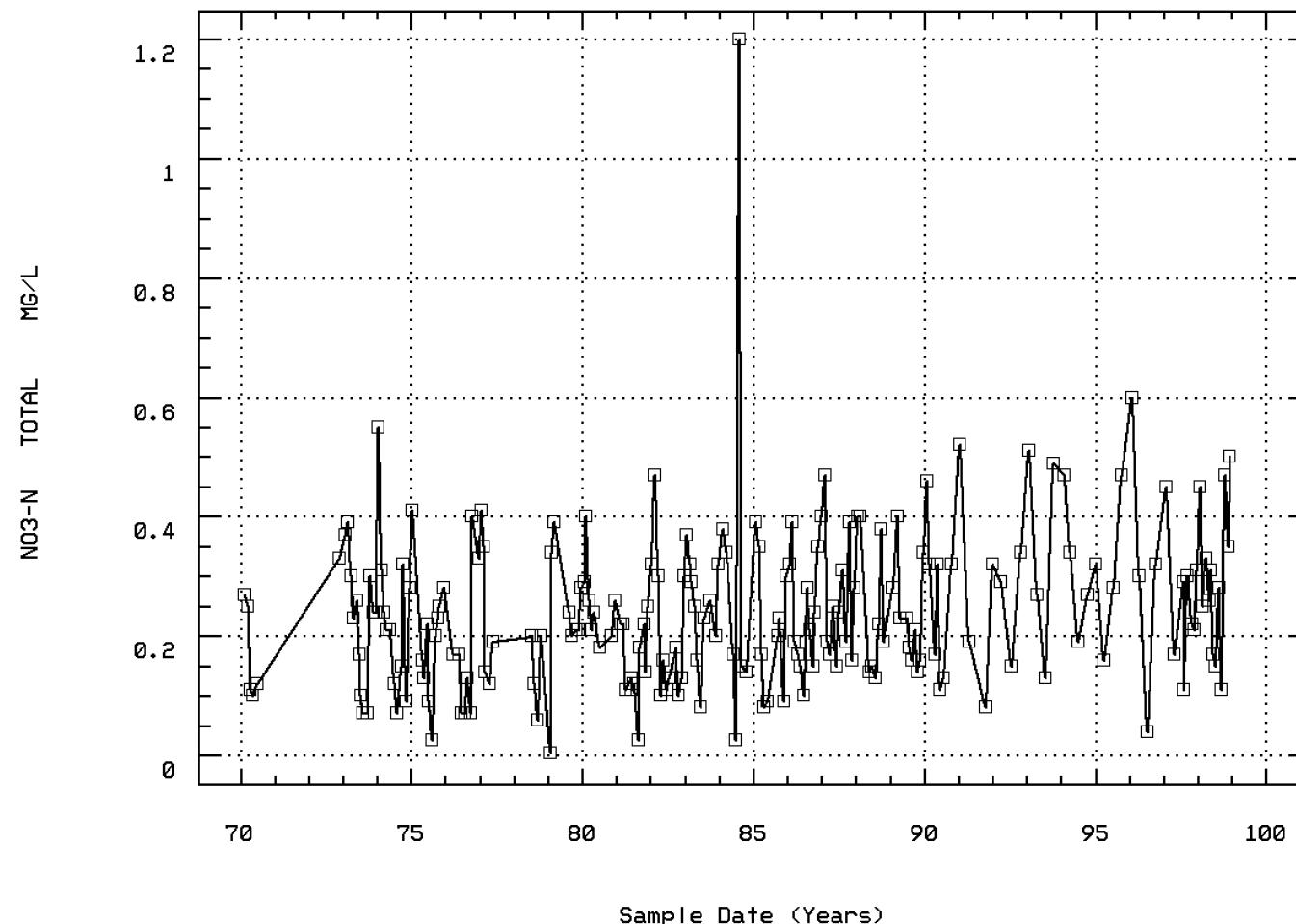
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00620

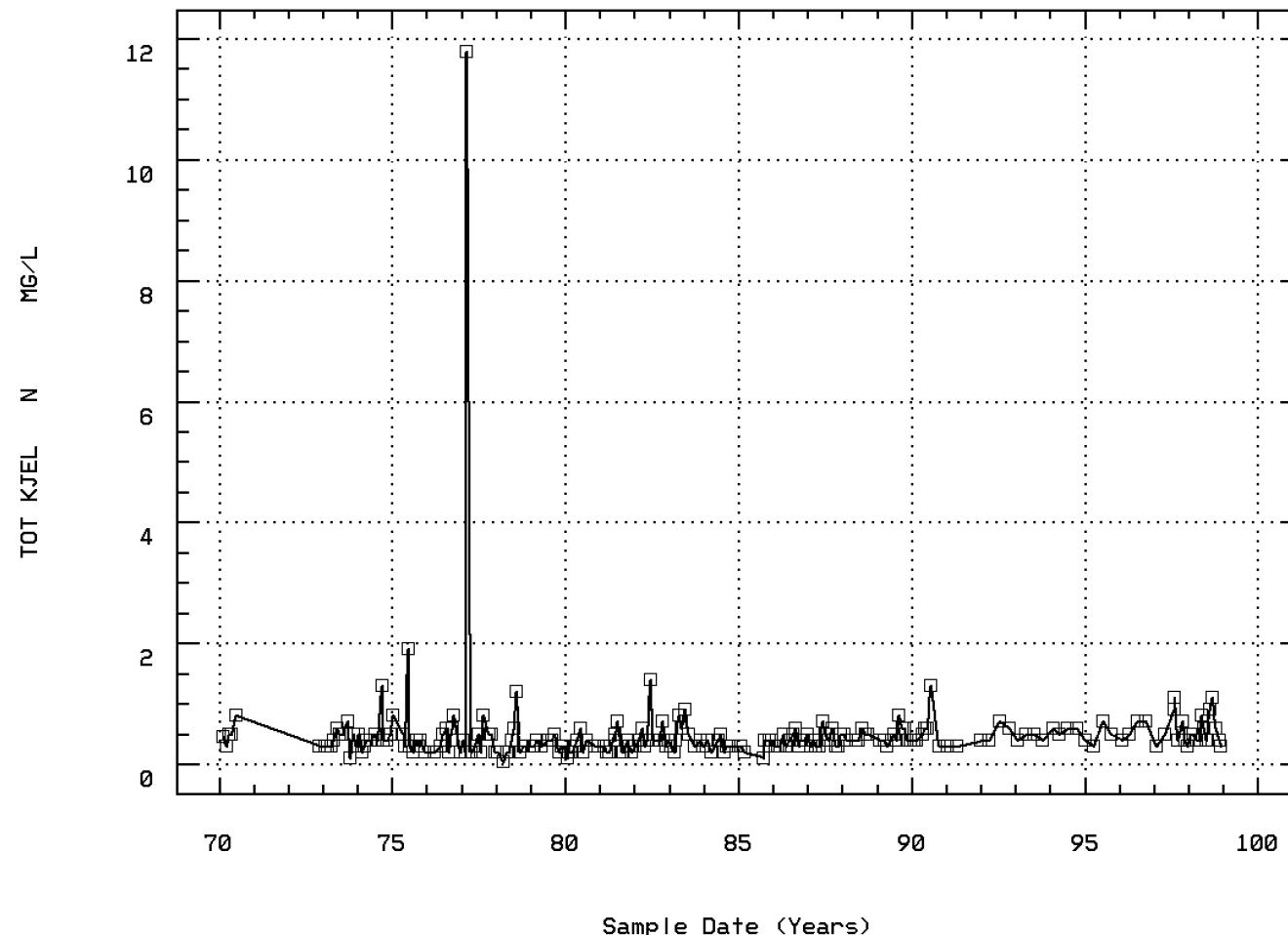
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00625

NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 1 BRIDGE

### Annual Analysis for 1968 - Station RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	5	26.1	25.32	30.	18.9	19.172	4.379	**	**	**	**
00300p OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	5	7.2	7.18	8.	6.2	0.442	0.665	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	1	3.7	3.7	3.7	0.	0.	0.	**	**	**	**
00400p PH (STANDARD UNITS)	06/28/68-12/07/98	5	7.	7.02	7.7	6.5	0.287	0.536	**	**	**	**
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	5	7.	6.8	7.7	6.5	0.347	0.589	**	**	**	**
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	5	0.1	0.158	0.316	0.02	0.022	0.147	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	1	4.	4.	4.	4.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	3	20.	17.233	25.	6.7	89.463	9.459	**	**	**	**
00300p OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	3	8.4	9.067	11.4	7.4	4.333	2.082	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	3	1.9	1.933	2.3	1.6	0.123	0.351	**	**	**	**
00400p PH (STANDARD UNITS)	06/28/68-12/07/98	3	6.5	6.633	7.	6.4	0.103	0.321	**	**	**	**
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	3	6.5	6.566	7.	6.4	0.11	0.332	**	**	**	**
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	3	0.316	0.271	0.398	0.1	0.024	0.154	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	2	65.5	65.5	117.	14.	5304.5	72.832	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	3	6.	12.667	27.	5.	154.333	12.423	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	2	49.	49.	90.	8.	3362.	57.983	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	15.6	14.591	23.9	4.4	58.663	7.659	4.4	5.6	22.2	23.78
00300p OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	11	9.	9.509	12.	7.6	2.323	1.524	7.64	8.2	10.4	12.
00310 BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	5	2.3	2.18	2.6	1.5	0.227	0.476	**	**	**	**
00400p PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.8	7.118	9.	5.5	1.	1.	5.72	6.7	7.5	8.96
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.8	6.4	9.	5.5	1.567	1.252	5.72	6.7	7.5	8.96
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	11	0.158	0.398	3.162	0.001	0.847	0.92	0.001	0.032	0.2	2.58
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	5	11.	15.4	27.	8.	80.3	8.961	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	5	6.	9.2	24.	4.	69.7	8.349	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	5	3.	6.2	16.	2.	33.7	5.805	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	5	0.09	0.082	0.12	0.05	0.001	0.031	**	**	**	**
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	5	0.01	0.01	0.02	0.005	0.	0.006	**	**	**	**
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	5	0.12	0.17	0.27	0.1	0.007	0.083	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	5	0.5	0.51	0.8	0.3	0.033	0.182	**	**	**	**
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	2	2550.	2550.	2700.	2400.	45000.	212.132	**	**	**	**
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	2	3.406	3.406	3.431	3.38	0.001	0.036	**	**	**	**
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	2545.584								
70505 PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	5	0.05	0.045	0.05	0.025	0.	0.011	**	**	**	**
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	5	0.02	0.024	0.04	0.01	0.	0.011	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	12	17.8	15.842	27.8	2.2	93.634	9.676	2.53	5.6	25.575	27.62
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	12	8.6	9.042	11.5	7.2	1.868	1.367	7.44	8.05	10.45	11.35
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.	7.025	7.6	6.7	0.086	0.293	6.7	6.725	7.3	7.51
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.	6.946	7.6	6.7	0.092	0.304	6.7	6.725	7.3	7.51
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	12	0.1	0.113	0.2	0.025	0.004	0.064	0.033	0.05	0.189	0.2
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	100.	1195.455	8000.	50.	5912227.273	2431.507	50.	50.	1300.	7000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	2.	2.342	3.903	1.699	0.653	0.808	1.699	1.699	3.114	3.818
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	220.023							

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### Annual Analysis for 1972 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	12.2	13.582	28.9	1.1	68.306	8.265	2.1	8.9	22.2	27.78
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	10	10.1	9.37	11.8	6.4	3.76	1.939	6.44	7.625	10.95	11.76
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.9	6.845	7.3	6.3	0.089	0.298	6.34	6.7	7.	7.28
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.9	6.75	7.3	6.3	0.099	0.314	6.34	6.7	7.	7.28
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	11	0.126	0.178	0.501	0.05	0.018	0.132	0.053	0.1	0.2	0.464
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	1	0.33	0.33	0.33	0.33	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	100.	390.909	2100.	50.	365909.091	604.904	50.	50.	400.	1820.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	2.	2.24	3.322	1.699	0.314	0.561	1.699	1.699	2.602	3.227
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	173.942							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**

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### Annual Analysis for 1973 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	15.6	15.618	27.8	2.2	83.29	9.126	2.64	5.6	24.4	27.36
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	12	8.9	9.517	13.6	7.2	4.578	2.14	7.2	7.625	10.8	13.42
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	12	6.85	6.825	7.	6.5	0.027	0.166	6.56	6.7	7.	7.
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	12	6.847	6.795	7.	6.5	0.028	0.169	6.56	6.7	7.	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	12	0.142	0.16	0.316	0.1	0.004	0.066	0.1	0.1	0.2	0.281
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	12##	0.05	0.046	0.1	0.005	0.001	0.023	0.007	0.043	0.05	0.085
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	12##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.009	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	12	0.24	0.228	0.39	0.07	0.012	0.108	0.07	0.118	0.3	0.384
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	12	0.45	0.458	1.	0.1	0.055	0.235	0.16	0.3	0.575	0.91
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	12##	75.	333.333	1800.	50.	304696.97	551.994	50.	50.	350.	1590.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	12##	1.849	2.116	3.255	1.699	0.318	0.564	1.699	1.699	2.527	3.191
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	130.657							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	12##	0.05	0.063	0.2	0.05	0.002	0.043	0.05	0.05	0.05	0.155
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	12##	0.05	0.062	0.2	0.01	0.002	0.048	0.016	0.05	0.05	0.17

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### Annual Analysis for 1974 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	13.3	14.864	26.1	6.7	65.875	8.116	6.7	6.7	25.	26.
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	11	8.8	9.327	12.8	5.4	6.274	2.505	5.64	6.8	11.4	12.64
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	11	7.3	7.155	7.9	6.5	0.175	0.418	6.54	6.7	7.5	7.82
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	11	7.3	6.984	7.9	6.5	0.207	0.455	6.54	6.7	7.5	7.82
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	11	0.05	0.104	0.316	0.013	0.009	0.095	0.016	0.032	0.2	0.293
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.05	0.059	0.1	0.05	0.	0.02	0.05	0.05	0.05	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11	0.21	0.232	0.55	0.07	0.018	0.136	0.074	0.12	0.31	0.504
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	11	0.4	0.482	1.299	0.2	0.081	0.285	0.22	0.4	0.5	1.139
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	11 ##	50.	181.818	600.	50.	40136.364	200.341	50.	50.	300.	580.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	11 ##	1.699	2.041	2.778	1.699	0.194	0.44	1.699	1.699	2.477	2.762
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	109.857								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	11 ##	0.05	0.064	0.1	0.05	0.001	0.023	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	11 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	13	17.8	16.285	25.	6.1	37.916	6.158	7.22	10.85	21.65	24.76
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	13	10.	9.662	12.	7.6	1.936	1.391	7.68	8.4	10.3	12.
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	13	7.	7.015	8.	6.5	0.168	0.41	6.5	6.7	7.15	7.8
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	13	7.	6.878	8.	6.5	0.189	0.434	6.5	6.7	7.15	7.8
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	13	0.1	0.133	0.316	0.01	0.01	0.098	0.019	0.075	0.2	0.316
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	10	0.1	0.09	0.2	0.05	0.002	0.046	0.05	0.05	0.1	0.19
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10	0.21	0.2	0.41	0.025	0.012	0.107	0.032	0.12	0.258	0.397
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	10	0.35	0.53	1.899	0.2	0.262	0.512	0.2	0.275	0.575	1.789
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	11	100.	972.727	6000.	50.	3627181.818	1904.516	50.	50.	400.	5440.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	11	2.	2.342	3.778	1.699	0.546	0.739	1.699	1.699	2.602	3.724
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	219.713								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	10 ##	0.04	0.032	0.05	0.005	0.	0.02	0.005	0.009	0.05	0.05

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	8	21.95	20.	27.2	3.9	60.366	7.77	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	8	9.15	9.225	11.4	7.7	1.208	1.099	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	8	7.45	7.513	8.6	7.	0.221	0.47	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	8	7.447	7.375	8.6	7.	0.243	0.493	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	8	0.036	0.042	0.1	0.003	0.001	0.028	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	8 ##	0.05	0.156	0.6	0.05	0.04	0.199	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8 ##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8	0.15	0.176	0.4	0.07	0.016	0.125	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	8	0.4	0.425	0.8	0.2	0.054	0.231	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	7	100.	135.714	400.	50.	16428.571	128.174	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	7	2.	2.	2.602	1.699	0.121	0.348	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	100.								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	8 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	8 ##	0.008	0.021	0.1	0.005	0.001	0.032	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	16.	12.9	28.	1.1	99.764	9.988	1.14	2.	21.	27.
00300p OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	10	9.8	9.62	13.3	5.2	6.237	2.497	5.46	7.875	11.35	13.27
00400p PH (STANDARD UNITS)	06/28/68-12/07/98	10	7.35	7.24	7.5	6.8	0.08	0.284	6.81	6.975	7.5	7.5
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	10	7.347	7.154	7.5	6.8	0.089	0.298	6.81	6.975	7.5	7.5
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	10	0.045	0.07	0.158	0.032	0.002	0.047	0.032	0.032	0.106	0.155
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	11	0.1	1.027	10.	0.05	8.867	2.978	0.05	0.05	0.2	8.08
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.005	0.007	0.03	0.005	0.	0.008	0.005	0.005	0.005	0.025
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	5	0.19	0.242	0.41	0.12	0.017	0.13	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	11	0.4	1.417	11.79	0.2	11.871	3.445	0.2	0.2	0.5	9.592
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	10	100.	340.	2300.	50.	481555.556	693.942	50.	50.	225.	2100.
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	10	2.	2.124	3.362	1.699	0.275	0.524	1.699	1.699	2.345	3.273
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	132.947							
70505 PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	11 ##	0.05	0.495	4.7	0.05	1.947	1.395	0.05	0.05	0.1	3.8
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	11 ##	0.005	0.389	4.199	0.005	1.597	1.264	0.005	0.005	0.01	3.365

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### Annual Analysis for 1978 - Station RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	9	15.5	15.189	27.	0.7	84.459	9.19	0.7	7.	24.	27.
00300p OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	9	8.6	9.089	15.4	6.6	7.689	2.773	6.6	7.25	10.15	15.4
00400p PH (STANDARD UNITS)	06/28/68-12/07/98	9	7.3	7.189	7.5	6.7	0.101	0.318	6.7	6.9	7.5	7.5
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	9	7.3	7.083	7.5	6.7	0.114	0.337	6.7	6.9	7.5	7.5
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	9	0.05	0.083	0.2	0.032	0.004	0.062	0.032	0.032	0.129	0.2
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	9 ##	0.05	0.083	0.2	0.05	0.003	0.05	0.05	0.05	0.1	0.2
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	9 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.005
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.16	0.145	0.2	0.06	0.005	0.068	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	9	0.2	0.372	1.2	0.05	0.121	0.347	0.05	0.2	0.5	1.2
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	9	100.	511.111	3400.	50.	1204861.111	1097.662	50.	50.	400.	3400.
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	9	2.	2.156	3.531	1.699	0.398	0.631	1.699	1.699	2.54	3.531
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	143.312							
70505 PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	9 ##	0.05	0.05	0.05	0.05	0.	0.	0.	0.05	0.05	0.05
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	9	0.01	0.01	0.03	0.005	0.	0.008	0.005	0.005	0.01	0.03

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0065

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	10	14.5	14.5	25.	2.	61.667	7.853	2.2	8.5	22.625	24.8
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	5	69.	66.	74.	55.	66.5	8.155	**	**	**	**
00300p OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	10	9.15	10.02	14.	8.	4.253	2.062	8.03	8.45	12.1	13.84
00310 BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	5	1.	1.4	2.	1.	0.3	0.548	**	**	**	**
00340 COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	5	18.	20.6	32.	15.	43.8	6.618	**	**	**	**
00400p PH (STANDARD UNITS)	06/28/68-12/07/98	10	7.05	7.09	7.5	6.5	0.081	0.285	6.54	6.975	7.325	7.49
00400p CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	10	7.047	6.997	7.5	6.5	0.091	0.301	6.54	6.975	7.325	7.49
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	10	0.09	0.101	0.316	0.032	0.007	0.082	0.032	0.048	0.106	0.297
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	5	16.	16.2	26.	10.	45.2	6.723	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	5	3.	3.	5.	0.	3.5	1.871	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	5	11.	13.2	22.	7.	34.7	5.891	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.005	0.046	0.29	0.005	0.008	0.092	0.005	0.005	0.043	0.272
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8	0.225	0.234	0.39	0.005	0.013	0.115	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	10	0.3	0.34	0.5	0.2	0.007	0.084	0.21	0.3	0.4	0.49

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### Annual Analysis for 1979 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	5 ##	0.05	0.07	0.1	0.05	0.001	0.027	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	5	0.03	0.03	0.05	0.01	0.	0.02	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	5	10.	11.2	14.	8.	7.2	2.683	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	9	300.	1316.667	8000.	50.	6736875.	2595.549	50.	50.	1400.	8000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	9	2.477	2.5	3.903	1.699	0.591	0.769	1.699	1.699	3.06	3.903
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			316.291								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	5 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	5	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	14.5	15.136	31.	3.	80.355	8.964	3.7	7.	21.	30.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	8	89.	86.25	112.	59.	311.357	17.645	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	11	10.	9.373	12.	6.2	3.55	1.884	6.34	7.9	11.	11.84
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	10	1.	1.4	3.	1.	0.489	0.699	1.	1.	2.	2.9
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	10	13.5	14.2	20.	10.	14.622	3.824	10.	10.75	19.	19.9
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	11	7.	7.027	7.5	6.5	0.084	0.29	6.54	6.8	7.2	7.46
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	11	7.	6.937	7.5	6.5	0.093	0.305	6.54	6.8	7.2	7.46
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	11	0.1	0.116	0.316	0.032	0.007	0.083	0.035	0.063	0.158	0.293
00530	RESIDUE, TOTAL NONINFILTRABLE (MG/L)	04/28/69-12/07/98	10	6.5	10.05	27.	2.5	71.747	8.47	2.5	2.5	17.5	26.2
00535	RESIDUE, VOLATILE NONINFILTRABLE (MG/L)	10/24/68-12/07/98	10	3.25	4.45	11.	1.	10.414	3.227	1.1	2.375	6.	10.8
00540	RESIDUE, FIXED NONINFILTRABLE (MG/L)	04/28/69-12/07/98	10	3.	6.6	18.	2.5	39.489	6.284	2.5	2.5	10.5	18.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.005	0.007	0.01	0.005	0.	0.002	0.005	0.005	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8	0.25	0.255	0.4	0.18	0.005	0.069	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	10	0.3	0.3	0.6	0.1	0.02	0.141	0.11	0.2	0.4	0.58
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	8 ##	0.05	0.075	0.2	0.05	0.003	0.053	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	8	0.02	0.02	0.06	0.005	0.	0.018	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	10	9.5	9.6	13.	7.	4.711	2.171	7.	7.75	12.	12.9
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	10	200.	430.	2200.	50.	434555.556	659.208	50.	50.	475.	2050.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	10	2.239	2.266	3.342	1.699	0.347	0.589	1.699	1.699	2.663	3.293
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			184.699								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	2 ##	0.075	0.075	0.1	0.05	0.001	0.035	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	2 ##	0.013	0.013	0.02	0.005	0.	0.011	**	**	**	**

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### Annual Analysis for 1981 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	12	17.75	17.083	28.	2.5	74.356	8.623	3.25	9.5	25.5	27.55
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	107.	100.727	121.	73.	302.218	17.384	73.6	83.	113.	121.
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	12	8.25	8.617	12.9	5.8	3.712	1.927	6.31	7.525	8.85	12.57
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	11	2.	1.727	3.	1.	0.418	0.647	1.	1.	2.	2.8
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	11	14.	13.545	18.	6.	12.673	3.56	6.6	11.	16.	17.8
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.	6.942	7.3	6.6	0.052	0.227	6.63	6.7	7.15	7.27
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.	6.888	7.3	6.6	0.055	0.234	6.63	6.7	7.15	7.27
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	12	0.1	0.129	0.251	0.05	0.004	0.066	0.054	0.072	0.2	0.236
00530	RESIDUE, TOTAL NONINFILTRABLE (MG/L)	04/28/69-12/07/98	11 ##	2.5	6.955	20.	2.5	50.473	7.104	2.5	2.5	14.	19.8
00535	RESIDUE, VOLATILE NONINFILTRABLE (MG/L)	10/24/68-12/07/98	11 ##	2.5	2.955	4.	2.5	0.473	0.688	2.5	2.5	4.	4.
00540	RESIDUE, FIXED NONINFILTRABLE (MG/L)	04/28/69-12/07/98	11 ##	2.5	5.591	17.	2.	31.791	5.638	2.1	2.5	10.	16.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09

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### Annual Analysis for 1981 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11	0.14	0.157	0.25	0.025	0.005	0.067	0.042	0.11	0.22	0.244
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	11	0.3	0.327	0.7	0.2	0.026	0.162	0.2	0.2	0.4	0.66
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11 ##	0.05	0.068	0.1	0.05	0.001	0.025	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	11	0.01	0.014	0.04	0.005	0.	0.01	0.005	0.01	0.02	0.036
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	11	7.	8.364	18.	3.	16.655	4.081	3.2	6.	11.	16.6
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	50.	113.636	400.	50.	14545.455	120.605	50.	50.	100.	380.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	1.699	1.907	2.602	1.699	0.113	0.336	1.699	1.699	2.	2.577
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	80.639								

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### Annual Analysis for 1982 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	10	14.5	15.25	29.	2.	76.903	8.769	2.35	7.	22.75	28.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	94.	143.182	644.	86.	27615.564	166.179	86.2	89.	98.	535.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	10	9.45	8.68	12.	5.1	5.12	2.263	5.15	6.5	10.25	11.84
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	11	2.	1.818	4.	1.	0.964	0.982	1.	1.	2.	3.8
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	16.	17.091	30.	11.	32.491	5.7	11.2	13.	20.	28.8
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.6	6.582	7.	6.	0.082	0.286	6.06	6.5	6.7	7.
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.6	6.491	7.	6.	0.091	0.301	6.06	6.5	6.7	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	11	0.251	0.323	1.	0.1	0.063	0.251	0.1	0.2	0.316	0.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	11	6.	9.5	39.	2.5	113.3	10.644	2.5	2.5	9.	34.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	11	5.	4.409	7.	2.5	2.591	1.61	2.5	2.5	6.	6.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	11	3.	6.227	32.	0.	83.918	9.161	0.	2.5	6.	28.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.05	0.141	0.8	0.05	0.05	0.223	0.05	0.05	0.1	0.68
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.005	0.011	0.05	0.005	0.	0.014	0.005	0.005	0.01	0.044
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11	0.16	0.209	0.47	0.1	0.015	0.121	0.1	0.11	0.3	0.44
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	11	0.4	0.509	1.4	0.3	0.103	0.321	0.3	0.3	0.6	1.26
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11 ##	0.05	0.095	0.4	0.05	0.011	0.104	0.05	0.05	0.1	0.34
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	11	0.01	0.05	0.36	0.005	0.011	0.104	0.006	0.01	0.03	0.302
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	11	5.	6.	11.	4.	5.6	2.366	4.	4.	8.	10.6
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	50.	972.727	8000.	50.	5610681.818	2368.688	50.	50.	700.	6680.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	1.699	2.217	3.903	1.699	0.576	0.759	1.699	1.699	2.845	3.752
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	164.891								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	10	12.5	14.71	30.	2.	80.974	8.999	2.4	7.5	22.25	29.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	10	78.5	82.	99.	75.	55.778	7.468	75.1	76.75	87.25	97.9
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	10	10.6	10.58	13.3	7.	3.6	1.897	7.18	8.95	12.075	13.2
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	9	2.	1.889	4.	1.	0.861	0.928	1.	1.	2.	4.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	10	14.	15.1	22.	10.	12.1	3.479	10.2	12.75	18.	21.6
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	9	6.8	6.9	8.	6.5	0.213	0.461	6.5	6.55	7.	8.
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	9	6.8	6.763	8.	6.5	0.233	0.483	6.5	6.55	7.	8.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	9	0.158	0.172	0.316	0.01	0.011	0.106	0.01	0.1	0.284	0.316
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	10	5.5	8.2	26.	2.5	59.844	7.736	2.5	2.5	13.	25.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	10	3.	4.2	8.	2.5	4.956	2.226	2.5	2.5	5.75	8.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	10	2.5	5.	18.	0.	28.556	5.344	0.2	2.375	8.25	17.1
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.006	0.01

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10	0.255	0.248	0.37	0.08	0.007	0.085	0.088	0.19	0.32	0.365
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	10	0.4	0.47	0.9	0.2	0.053	0.231	0.21	0.3	0.65	0.89
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	10	0.02	0.024	0.04	0.01	0.	0.011	0.01	0.018	0.033	0.04
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	10	6.5	6.9	9.	4.	3.211	1.792	4.1	5.75	9.	9.
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	10	100.	535.	4000.	50.	1496138.889	1223.168	50.	50.	325.	3640.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	10	2.	2.208	3.602	1.699	0.343	0.586	1.699	1.699	2.508	3.502
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =		161.405							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	7	20.5	19.071	26.	9.	46.786	6.84	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	7	75.	81.429	108.	63.	274.952	16.582	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	7	8.6	9.243	11.1	7.7	1.72	1.311	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	7	1.	1.429	3.	1.	0.619	0.787	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	7	11.	10.714	16.	5.	11.238	3.352	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	7	6.7	6.769	8.3	5.6	0.801	0.895	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	7	6.7	6.22	8.3	5.6	1.151	1.073	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	7	0.2	0.602	2.512	0.005	0.823	0.907	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	7	5.	14.357	55.	2.5	368.476	19.196	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	7	4.	3.643	5.	2.5	1.31	1.144	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	7	2.5	11.786	50.	1.	314.238	17.727	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	7 ##	0.05	0.057	0.1	0.	0.019	**	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	7 ##	0.005	0.007	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	7	0.17	0.344	1.2	0.025	0.158	0.397	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	7	0.3	0.329	0.5	0.2	0.012	0.111	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	7	0.1	0.1	0.2	0.05	0.003	0.05	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	7	0.03	0.052	0.19	0.005	0.004	0.066	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	7	6.	5.857	9.	4.	2.476	1.574	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	7 ##	50.	857.143	4900.	50.	3234523.81	1798.478	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	7 ##	1.699	2.233	3.69	1.699	0.607	0.779	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =		171.069							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	16.	16.036	27.	3.5	54.215	7.363	4.1	11.	22.	26.4
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	88.	82.727	108.	46.	279.218	16.71	50.2	75.	91.	106.
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	11	9.4	9.891	14.1	7.8	3.975	1.994	7.84	8.1	11.2	13.64
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	11 ##	0.5	1.273	5.	0.5	1.868	1.367	0.5	0.5	2.	4.4
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	11	13.	15.455	25.	8.	31.873	5.646	8.6	11.	22.	24.6
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.9	6.814	7.9	5.9	0.28	0.529	5.98	6.4	7.1	7.76
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	11	6.9	6.549	7.9	5.9	0.357	0.597	5.98	6.4	7.1	7.76
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	11	0.126	0.282	1.259	0.013	0.127	0.357	0.023	0.079	0.398	1.107
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	11 ##	2.5	13.273	98.	2.5	802.268	28.324	2.5	2.5	10.	81.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	11 ##	2.5	3.727	14.	1.	14.068	3.751	1.	2.5	3.	12.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	11 ##	2.5	10.909	84.	2.	595.741	24.408	2.1	2.5	4	69.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	9 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	9 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.008	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	9	0.2	0.211	0.39	0.08	0.013	0.116	0.08	0.09	0.325	0.39

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	6	0.35	0.3	0.4	0.1	0.016	0.126	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	6 ##	0.05	0.058	0.1	0.05	0.	0.02	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	9	0.02	0.02	0.05	0.005	0.	0.015	0.005	0.008	0.03	0.05
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	11	6.	6.	11.	1.	7.6	2.757	1.4	4.	7.	10.6
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	100.	259.091	1500.	50.	179409.091	423.567	50.	50.	300.	1260.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	2.	2.112	3.176	1.699	0.234	0.483	1.699	1.699	2.477	3.036
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		129.291							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	12	13.5	15.675	28.	5.5	69.862	8.358	5.65	6.75	23.725	27.1
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	12	86.5	148.25	839.	71.	47369.295	217.645	73.1	81.	93.5	615.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	12	9.8	9.617	12.6	5.8	3.978	1.994	6.28	8.125	11.175	12.48
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	12	1.	1.125	2.	0.5	0.188	0.433	0.65	1.	1.	2.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	12	12.5	12.917	21.	2.	26.811	5.178	4.1	10.	16.	20.7
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.3	7.087	7.49	6.3	0.138	0.371	6.39	6.825	7.363	7.46
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.3	6.916	7.49	6.3	0.17	0.413	6.39	6.825	7.363	7.46
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	12	0.05	0.121	0.501	0.032	0.019	0.136	0.035	0.044	0.15	0.426
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	12 ##	3.75	5.417	18.	2.5	20.129	4.487	2.5	2.5	7.	15.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	12 ##	2.5	3.333	6.	2.	1.742	1.32	2.15	2.5	4.75	5.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	12 ##	2.5	3.333	12.	0.	8.652	2.941	0.6	2.5	3.	9.9
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	12 ##	0.05	0.075	0.2	0.05	0.002	0.045	0.05	0.05	0.1	0.17
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	12 ##	0.008	0.008	0.02	0.005	0.	0.004	0.005	0.005	0.01	0.017
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	12	0.225	0.246	0.4	0.1	0.01	0.101	0.115	0.155	0.343	0.397
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	12	0.4	0.4	0.6	0.3	0.011	0.104	0.3	0.3	0.5	0.57
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	12 ##	0.075	0.075	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	12	0.015	0.031	0.1	0.01	0.001	0.032	0.01	0.01	0.038	0.097
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	12	6.5	6.417	7.	5.	0.447	0.669	5.3	6.	7.	7.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	50.	86.364	200.	50.	3545.455	59.544	50.	50.	100.	200.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	1.699	1.863	2.301	1.699	0.061	0.247	1.699	1.699	2.	2.301
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		72.974							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	11	15.5	16.536	28.	4.6	75.379	8.682	5.18	7.5	26.	27.96
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	86.	94.455	191.	72.	1106.873	33.27	72.6	78.	93.	173.8
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	9	9.8	10.122	12.7	7.9	2.997	1.731	7.9	8.5	11.65	12.7
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	10	1.5	1.5	2.	1.	0.278	0.527	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	16.	16.091	23.	7.	20.691	4.549	8.	13.	19.	22.8
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	11	7.38	7.404	7.88	6.98	0.097	0.311	6.984	7.13	7.7	7.856
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	11	7.38	7.308	7.88	6.98	0.107	0.327	6.984	7.13	7.7	7.856
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	11	0.042	0.049	0.105	0.013	0.001	0.033	0.014	0.02	0.074	0.104
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	11 ##	2.5	7.136	26.	2.5	65.255	8.078	2.5	2.5	12.	24.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	11 ##	2.5	2.909	6.	2.5	1.091	1.044	2.5	2.5	3.	5.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	11 ##	2.5	6.273	23.	2.5	40.868	6.393	2.5	2.5	9.	20.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.05	0.059	0.1	0.05	0.	0.02	0.05	0.05	0.05	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11 ##	0.005	0.008	0.03	0.005	0.	0.008	0.005	0.005	0.01	0.026
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	11	0.24	0.255	0.47	0.15	0.01	0.102	0.152	0.17	0.31	0.454
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	11	0.4	0.418	0.7	0.3	0.02	0.14	0.3	0.3	0.5	0.68

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11	0.1	0.077	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	11	0.02	0.023	0.08	0.005	0.	0.021	0.006	0.01	0.02	0.072
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	7	6.	6.429	8.	5.	0.952	0.976	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	9	100.	166.667	700.	50.	46250.	215.058	50.	50.	200.	700.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	9	2.	2.013	2.845	1.699	0.163	0.404	1.699	1.699	2.239	2.845
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	103.068								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	12	19.25	16.217	25.3	4.	75.767	8.704	4.3	6.925	24.	25.21
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	8	90.5	90.	127.	57.	360.571	18.989	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	12	9.25	9.933	13.1	7.4	5.102	2.259	7.4	8.1	12.5	13.07
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	8	1.	1.438	4.	0.5	1.246	1.116	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	8	15.5	16.625	25.	10.	26.839	5.181	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.315	7.188	8.9	4.45	1.053	1.026	5.125	6.922	7.63	8.543
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.315	5.521	8.9	4.45	4.086	2.021	5.125	6.922	7.63	8.543
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	12	0.048	3.014	35.481	0.001	104.546	10.225	0.007	0.023	0.12	24.897
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	8	5.5	13.625	57.	2.5	345.054	18.576	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	8	2.75	3.	8.	1.	4.786	2.188	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	8	3.75	11.313	49.	0.5	266.281	16.318	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	8	0.09	0.115	0.32	0.02	0.008	0.091	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8	0.02	0.026	0.05	0.01	0.	0.015	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8	0.205	0.251	0.4	0.13	0.015	0.121	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	8	0.5	0.538	1.	0.4	0.04	0.2	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	8	0.075	0.082	0.2	0.01	0.003	0.058	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	7	0.02	0.041	0.14	0.01	0.002	0.048	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	6	4.85	5.3	7.9	4.2	1.836	1.355	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	50.	236.364	1500.	50.	190545.455	436.515	50.	50.	300.	1280.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11 ##	1.699	1.986	3.176	1.699	0.27	0.519	1.699	1.699	2.477	3.061
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	96.849								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	12	18.2	17.275	27.	1.8	64.6	8.037	3.81	10.275	24.45	26.82
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	8	80.5	72.625	89.	13.	607.696	24.651	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	12	9.3	9.942	14.6	7.3	6.039	2.457	7.36	7.9	12.075	14.21
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	11	3.	2.455	5.	1.	2.273	1.508	1.	1.	4.	4.8
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	20.	18.455	28.	10.	34.273	5.854	10.4	13.	22.	27.6
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.545	7.614	9.02	7.03	0.295	0.543	7.042	7.163	7.805	8.732
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	12	7.542	7.415	9.02	7.03	0.338	0.582	7.042	7.162	7.805	8.732
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	12	0.029	0.038	0.093	0.001	0.001	0.031	0.003	0.016	0.071	0.091
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	11	5.	19.364	163.	2.	2274.255	47.689	2.	4.	6.	132.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	11	2.	4.5	27.	0.5	58.2	7.629	0.5	0.5	4.	22.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	11	4.	15.136	136.	0.5	1610.755	40.134	0.5	0.5	5.	110.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	10	0.05	0.121	0.8	0.02	0.057	0.239	0.02	0.035	0.065	0.728
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10 ##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.019
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	10	0.22	0.233	0.4	0.14	0.007	0.084	0.142	0.16	0.295	0.394
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	10	0.4	0.48	0.8	0.3	0.022	0.148	0.31	0.4	0.6	0.78
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	10	0.1	0.085	0.1	0.05	0.001	0.024	0.05	0.05	0.1	0.1

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### Annual Analysis for 1989 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	10	0.025	0.024	0.04	0.01	0.	0.01	0.01	0.018	0.03	0.039
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	11	5.7	5.664	8.5	3.2	2.171	1.473	3.26	5.2	6.5	8.14
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	200.	572.727	2800.	50.	643681.818	802.298	50.	100.	600.	2460.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	11	2.301	2.451	3.447	1.699	0.297	0.545	1.699	2.	2.778	3.366
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		282.764							

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### Annual Analysis for 1990 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	6	13.6	13.817	24.2	1.9	83.938	9.162	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	1	110.	110.	110.	0.	0.	0.	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	5	8.5	8.96	12.1	7.3	3.438	1.854	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	7	2.	2.714	9.	1.	8.238	2.87	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	8	15.5	15.875	24.	10.	23.554	4.853	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	6	7.245	7.252	7.9	6.71	0.216	0.465	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	6	7.235	7.07	7.9	6.71	0.256	0.506	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	6	0.058	0.085	0.195	0.013	0.006	0.076	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	8	5.	4.188	7.	0.5	5.281	2.298	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	8	2.	2.438	5.	0.5	3.103	1.761	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	8	1.5	1.875	4.	0.5	1.768	1.33	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	7	0.04	0.046	0.12	0.02	0.001	0.034	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	7##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	7	0.32	0.261	0.46	0.11	0.016	0.128	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	7	0.5	0.586	1.3	0.3	0.111	0.334	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	7##	0.05	0.071	0.1	0.05	0.001	0.027	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	7	0.01	0.013	0.02	0.005	0.	0.007	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	8	5.75	5.45	6.6	4.	1.131	1.064	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	7	100.	271.429	1200.	50.	171547.619	414.183	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	7	2.	2.154	3.079	1.699	0.227	0.476	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		142.616							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1991 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	5	17.2	19.32	27.6	7.4	72.512	8.515	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	3	9.4	9.867	12.9	7.3	8.003	2.829	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	3	1.	1.333	2.	1.	0.333	0.577	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	3	24.	22.667	25.	19.	10.333	3.215	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	5	6.9	6.874	7.1	6.71	0.023	0.152	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	5	6.9	6.854	7.1	6.71	0.024	0.154	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	5	0.126	0.14	0.195	0.079	0.002	0.045	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	3	3.	5.167	11.	1.	26.083	5.107	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	3	1.	1.167	2.	0.5	0.583	0.764	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	3	2.	4.167	9.	1.5	17.583	4.193	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	3	0.06	0.173	0.44	0.02	0.054	0.232	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	3##	0.005	0.007	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	3	0.19	0.263	0.52	0.08	0.052	0.229	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	3	0.3	0.533	1.	0.3	0.163	0.404	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	3##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	2	0.025	0.025	0.04	0.01	0.	0.021	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	3	4.5	4.733	6.1	3.6	1.603	1.266	**	**	**	**

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### Annual Analysis for 1991 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	4 ##	275.	425.	1100.	50.	247500.	497.494	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	4 ##	2.199	2.285	3.041	1.699	0.477	0.69	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				192.564								
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	2 ##	0.008	0.008	0.01	0.005	0.	0.004	**	**	**	**

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### Annual Analysis for 1992 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	4	12.55	15.35	29.4	6.9	95.203	9.757	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	4	2.	2.	3.	1.	0.667	0.816	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	4	14.	13.	18.	6.	28.	5.292	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.72	6.645	6.96	6.18	0.111	0.334	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.716	6.539	6.96	6.18	0.126	0.355	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	4	0.192	0.289	0.661	0.11	0.063	0.252	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	5.	4.75	6.	3.	1.583	1.258	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	4	1.	1.5	3.	1.	1.	1.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	3.	3.25	5.	2.	2.25	1.5	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.05	0.055	0.1	0.02	0.001	0.034	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4 ##	0.008	0.008	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.305	0.275	0.34	0.15	0.007	0.086	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	4	0.5	0.525	0.7	0.4	0.022	0.15	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	4	0.075	0.07	0.1	0.03	0.001	0.036	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	4	4.7	4.575	5.5	3.4	0.862	0.929	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	4 ##	50.	137.5	400.	50.	30625.	175.	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	4 ##	1.699	1.925	2.602	1.699	0.204	0.452	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				84.09								
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	4	0.015	0.014	0.02	0.005	0.	0.008	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1993 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	4	16.7	16.575	27.	5.9	75.029	8.662	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	4	2.	2.	3.	1.	0.667	0.816	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	4	19.	19.75	24.	17.	9.583	3.096	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.8	6.74	6.96	6.4	0.07	0.265	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.778	6.677	6.96	6.4	0.075	0.275	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	4	0.167	0.21	0.398	0.11	0.018	0.135	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	5.	4.375	6.	1.5	3.896	1.974	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	4 ##	1.5	1.75	3.	1.	0.75	0.866	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	3.	3.375	6.	1.5	4.229	2.056	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.06	0.065	0.1	0.04	0.001	0.026	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.01	0.009	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.38	0.35	0.51	0.13	0.033	0.183	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	4	0.45	0.45	0.5	0.4	0.003	0.058	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	4	0.04	0.045	0.07	0.03	0.	0.017	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	4	5.95	6.225	7.4	5.6	0.643	0.802	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	4	450.	937.5	2800.	50.	1578958.333	1256.566	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	4	2.651	2.612	3.447	1.699	0.513	0.716	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				409.062								
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	4	0.025	0.023	0.03	0.01	0.	0.01	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	4	16.55	15.775	26.7	3.3	92.196	9.602	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	4	2.3	2.35	3.3	1.5	0.603	0.777	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	4	17.	16.5	21.	11.	17.	4.123	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.645	6.69	6.9	6.57	0.021	0.146	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.644	6.673	6.9	6.57	0.022	0.147	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	4	0.227	0.212	0.269	0.126	0.004	0.062	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	6.5	12.25	30.	6.	140.25	11.843	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	4	3.5	4.	7.	2.	4.667	2.16	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	3.5	8.25	23.	3.	96.917	9.845	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.07	0.073	0.13	0.02	0.002	0.045	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.01	0.009	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.305	0.318	0.47	0.19	0.014	0.119	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	4	0.6	0.575	0.6	0.5	0.002	0.05	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	4	0.045	0.053	0.09	0.03	0.001	0.026	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	4	5.65	5.75	6.8	4.9	0.63	0.794	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	3	300.	233.333	300.	100.	13333.333	115.47	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	3	2.477	2.318	2.477	2.	0.076	0.275	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			208.008								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	4	0.01	0.016	0.04	0.005	0.	0.016	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	4	15.4	14.725	25.	3.1	86.542	9.303	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	2	95.	95.	108.	82.	338.	18.385	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	4	1.9	1.9	2.8	1.	1.08	1.039	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	4	15.5	16.	21.	12.	14.	3.742	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.78	6.8	7.08	6.56	0.048	0.219	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.776	6.761	7.08	6.56	0.05	0.224	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	4	0.168	0.173	0.275	0.083	0.007	0.081	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	9.5	10.625	22.	1.5	91.896	9.586	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	4##	2.25	3.	6.	1.5	4.5	2.121	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	7.5	8.125	16.	1.5	49.063	7.004	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.05	0.048	0.07	0.02	0.	0.022	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.01	0.011	0.02	0.005	0.	0.006	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.3	0.308	0.47	0.16	0.016	0.128	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	4	0.45	0.475	0.7	0.3	0.029	0.171	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	4	0.045	0.043	0.06	0.02	0.	0.021	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	4	6.05	6.025	6.9	5.1	0.543	0.737	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	4	0.025	0.028	0.05	0.01	0.	0.017	**	**	**	**

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### Annual Analysis for 1996 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	4	13.85	14.45	25.8	4.3	81.523	9.029	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	4	113.5	110.5	149.	66.	1208.333	34.761	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	4	2.	1.75	2.	1.	0.25	0.5	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	4	22.5	22.25	24.	20.	4.25	2.062	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.37	6.45	7.02	6.04	0.171	0.414	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	4	6.366	6.33	7.02	6.04	0.19	0.436	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	4	0.431	0.467	0.912	0.095	0.115	0.339	**	**	**	**

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### Annual Analysis for 1996 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	9.	18.5	52.	4.	504.333	22.457	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	4 ##	3.25	4.	8.	1.5	9.833	3.136	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	4	5.5	14.5	44.	3.	389.667	19.74	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	4 ##	0.045	0.053	0.1	0.02	0.002	0.039	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.015	0.02	0.04	0.01	0.	0.014	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	4	0.31	0.315	0.6	0.04	0.052	0.229	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	4	0.6	0.575	0.7	0.4	0.022	0.15	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	4	0.04	0.065	0.15	0.03	0.003	0.057	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	3	6.5	7.167	10.3	4.7	8.173	2.859	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	4	0.03	0.043	0.09	0.02	0.001	0.033	**	**	**	**

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### Annual Analysis for 1997 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	8	14.3	15.213	28.2	3.7	84.836	9.211	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	7	94.	93.	120.	50.	469.333	21.664	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	8	1.5	1.75	4.	1.	1.071	1.035	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	8	13.5	15.875	27.	7.	50.982	7.14	**	**	**	**
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	8	6.925	6.886	7.37	6.32	0.096	0.309	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	8	6.925	6.784	7.37	6.32	0.107	0.328	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	8	0.119	0.164	0.479	0.043	0.019	0.136	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	8	4.5	6.25	19.	1.5	32.429	5.695	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	8 ##	1.5	2.5	6.	1.5	3.5	1.871	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	8 ##	1.5	3.563	14.	1.5	18.674	4.321	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	8 ##	0.02	0.064	0.33	0.02	0.012	0.108	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8 ##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	8	0.255	0.258	0.45	0.11	0.011	0.104	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	8	0.45	0.575	1.1	0.3	0.088	0.296	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	8	0.035	0.039	0.05	0.03	0.	0.01	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	8	0.03	0.025	0.03	0.01	0.	0.008	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

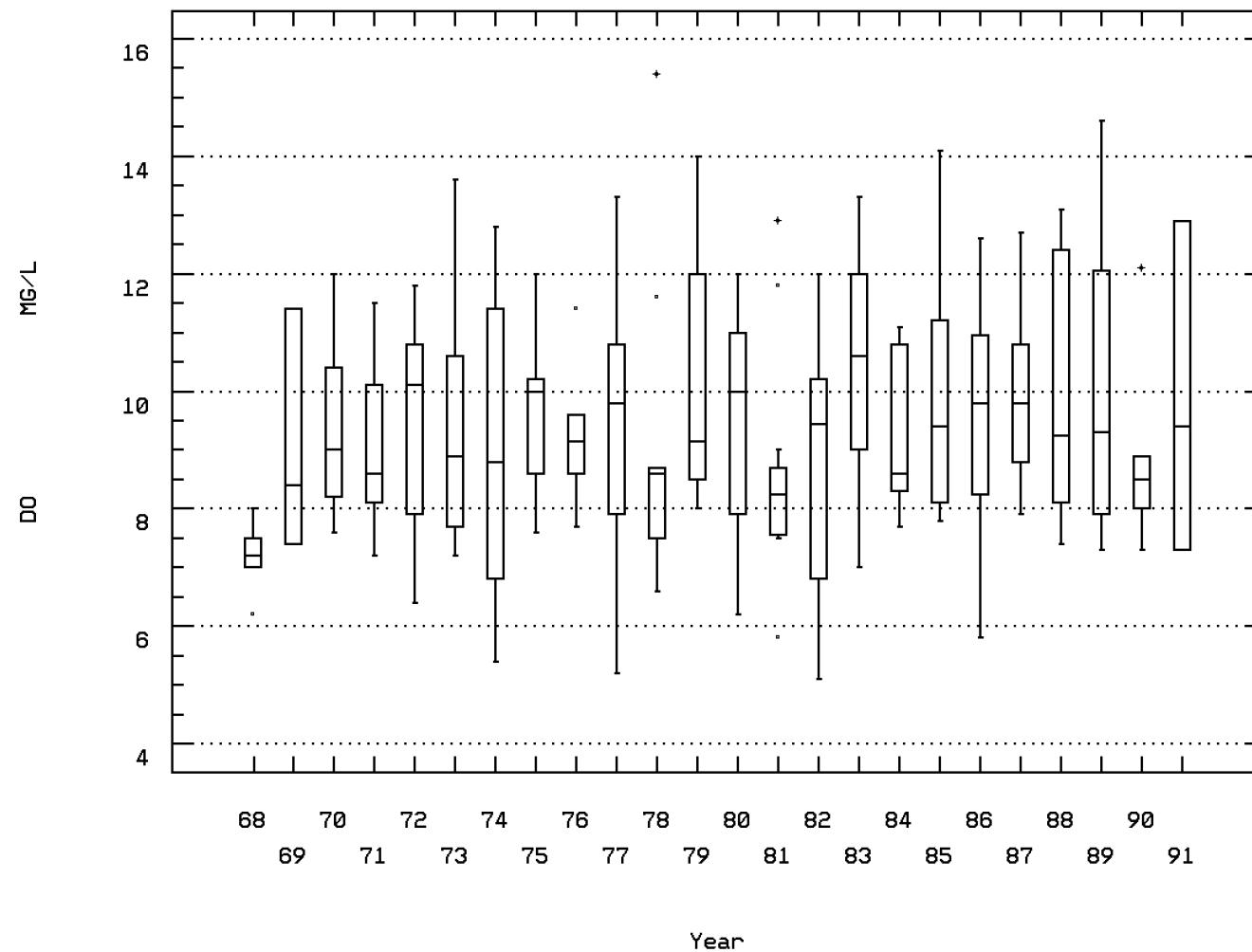
### Annual Analysis for 1998 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	12	17.75	16.9	26.8	6.2	51.4	7.169	6.98	9.5	22.925	26.65
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	12	92.5	92.667	132.	62.	490.606	22.15	63.5	73.25	112.75	127.2
00310	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	12 ##	1.	1.833	5.	1.	1.97	1.403	1.	1.	2.75	4.7
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	12	15.	15.833	23.	9.	17.242	4.152	9.3	13.5	19.25	22.4
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	12	6.85	6.858	7.25	6.52	0.067	0.258	6.529	6.59	7.092	7.232
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	12	6.85	6.792	7.25	6.52	0.071	0.267	6.529	6.59	7.092	7.232
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	12	0.141	0.162	0.302	0.056	0.008	0.089	0.059	0.081	0.258	0.296
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	12	5	8.	39.	1.5	111.	10.536	1.5	1.5	10.75	31.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	12 ##	1.5	2.667	7.	1.5	3.879	1.969	1.5	1.5	3.75	6.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	12 ##	1.5	5.5	32.	1.5	79.	8.888	1.5	1.5	7.5	25.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	12 ##	0.02	0.028	0.07	0.02	0.	0.018	0.02	0.02	0.02	0.067
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	12 ##	0.005	0.01	0.02	0.005	0.	0.007	0.005	0.005	0.018	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	12	0.295	0.303	0.5	0.11	0.016	0.126	0.122	0.19	0.425	0.491
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	12	0.5	0.575	1.1	0.3	0.058	0.242	0.33	0.4	0.75	1.04
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	12	0.05	0.047	0.08	0.02	0.	0.018	0.02	0.033	0.06	0.074
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	12	0.025	0.032	0.08	0.005	0.	0.021	0.01	0.02	0.045	0.074

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station: RICH0065 Parameter Code: 00300

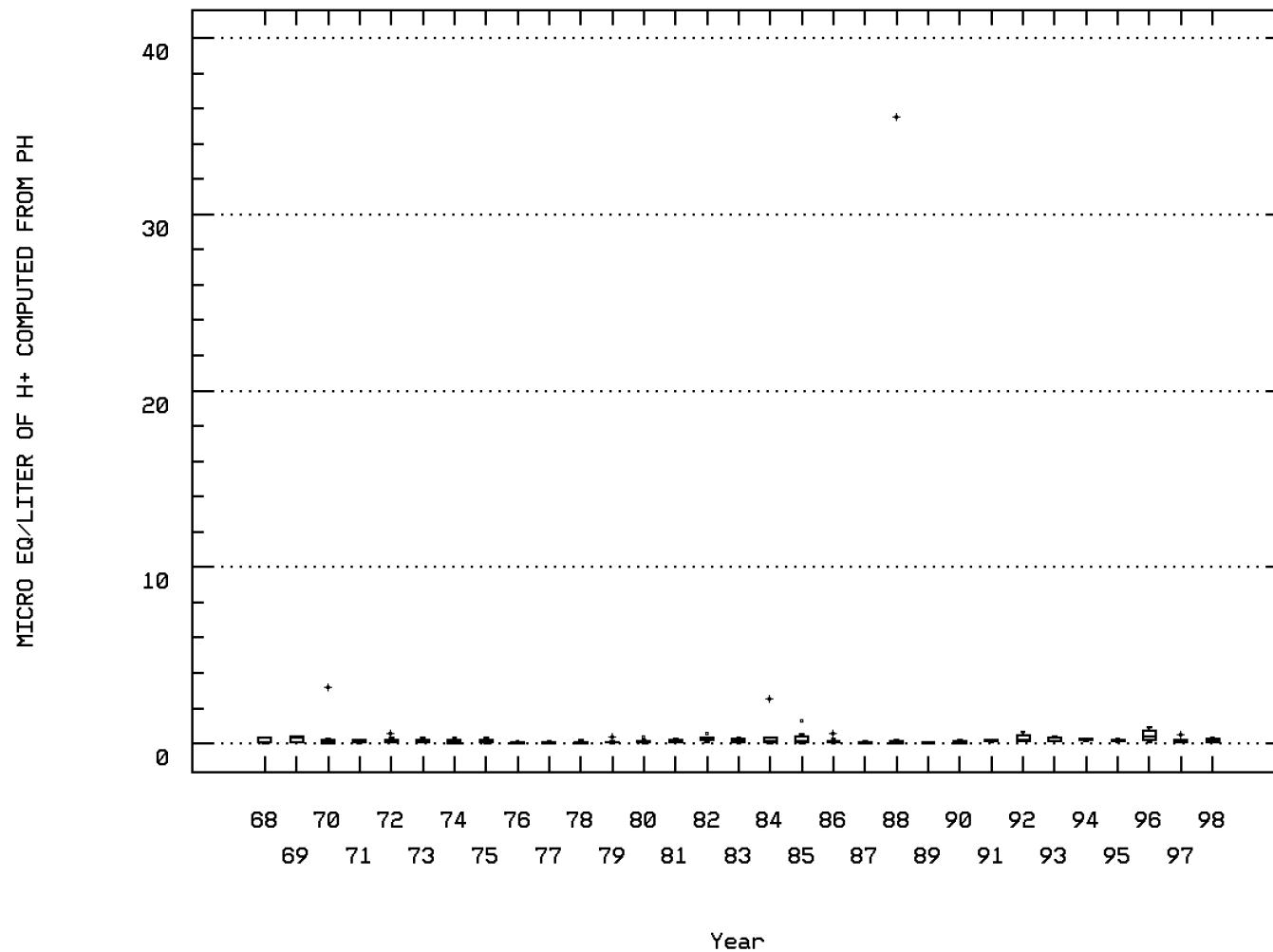
OXYGEN, DISSOLVED



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00400

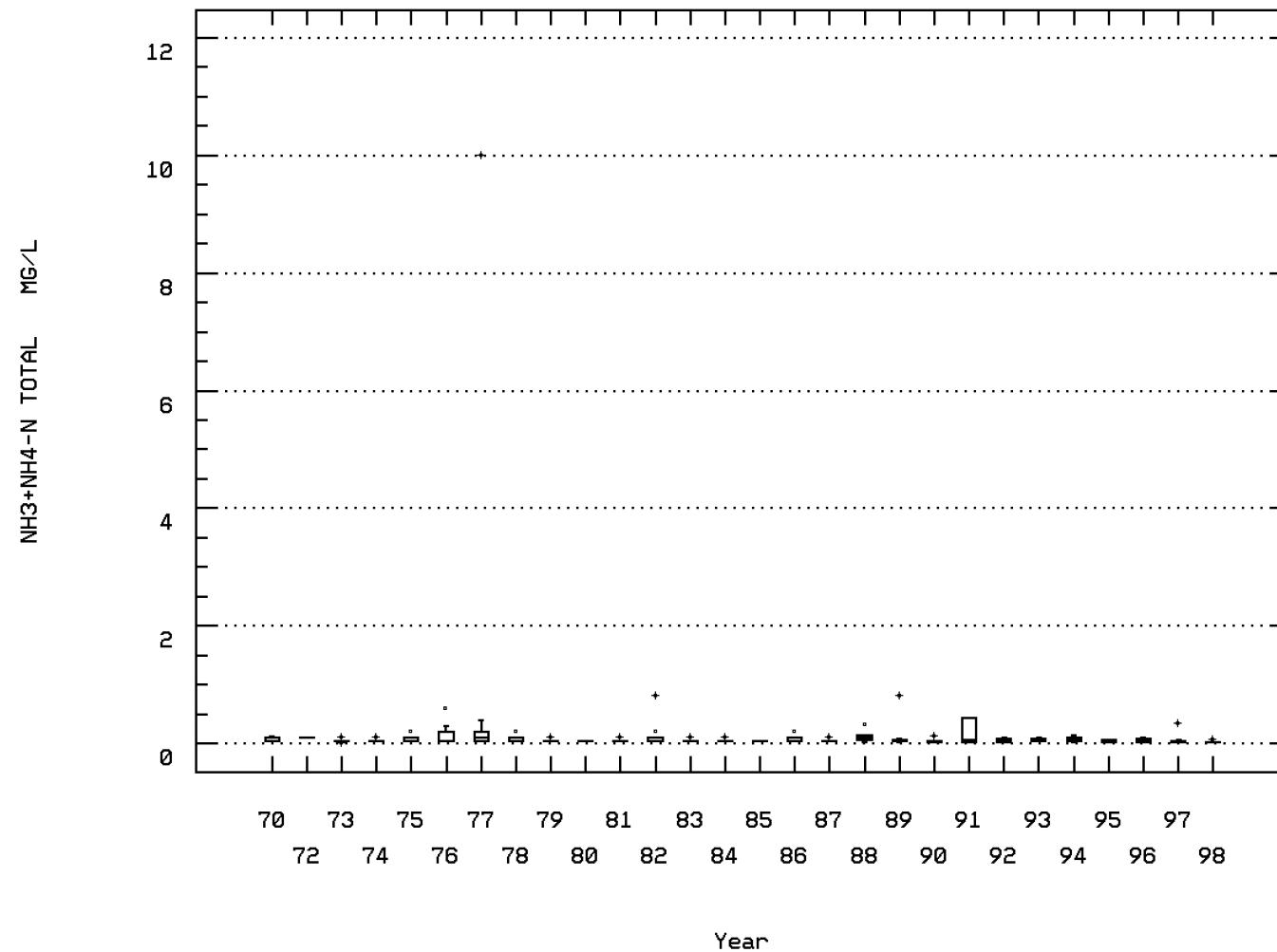
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00610

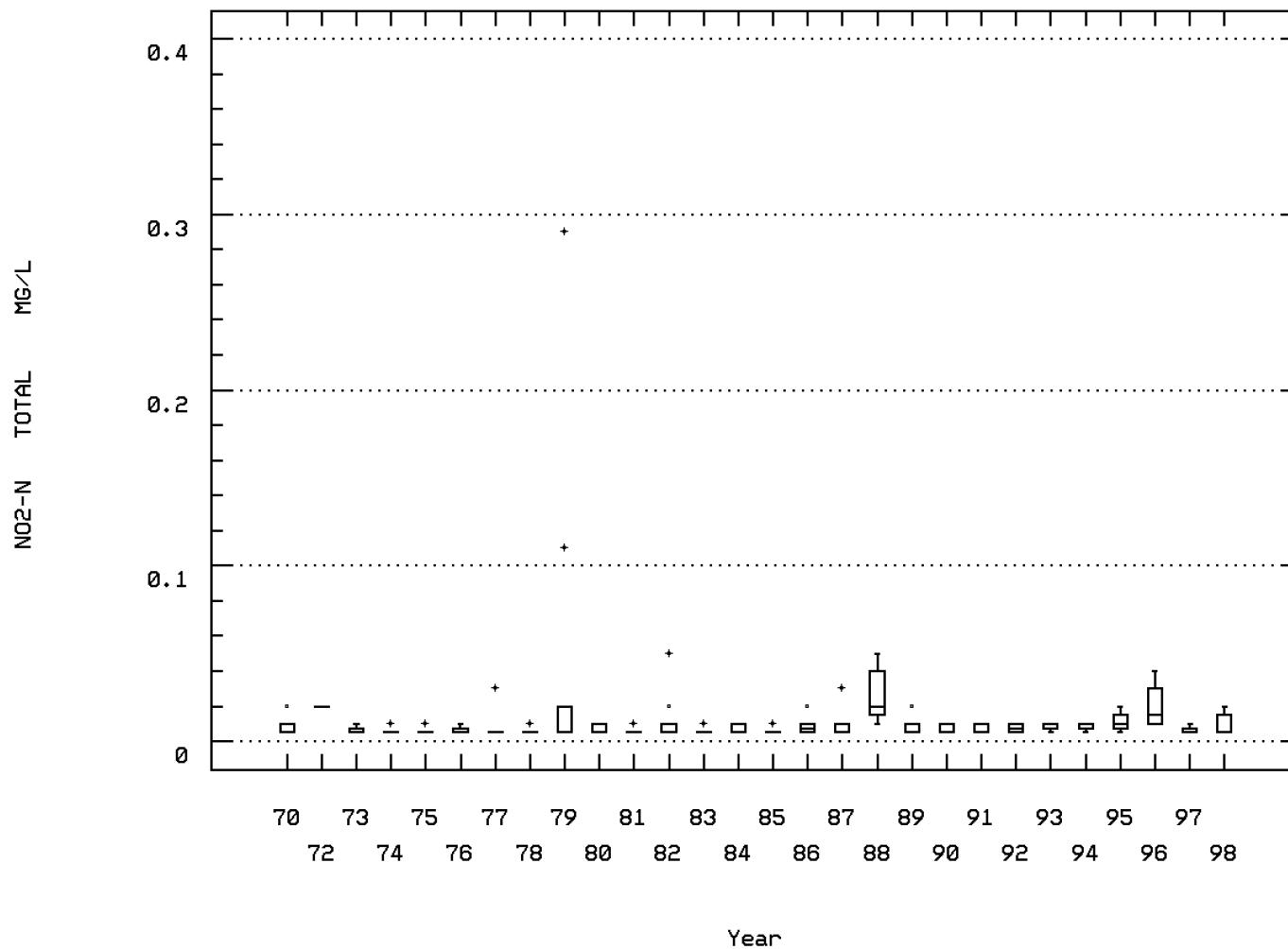
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00615

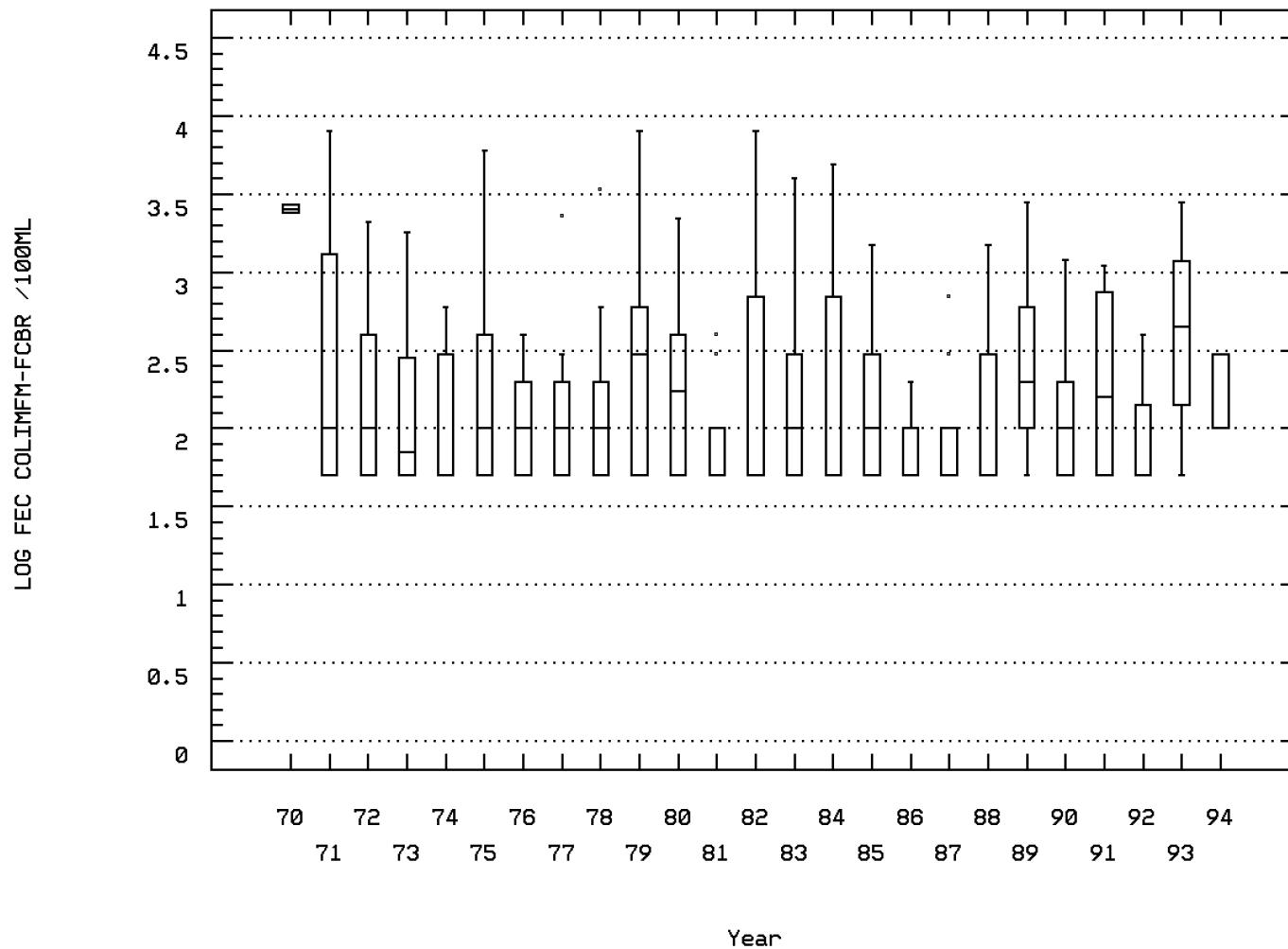
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 31616

LOG FECAL COLIFORM, MEMBR FILTER, M-FC BR



RT. 1 BRIDGE

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	83	24.6	23.742	31.	2.5	19.53	4.419	17.92	21.8	26.8	28.12
00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-01/02/92	4	7.35	10.6	22.	5.7	58.847	7.671	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	37	83.	99.027	644.	46.	8825.36	93.943	56.6	72.	101.	112.6
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/11/80-12/07/98	19	93.	90.789	115.	64.	206.842	14.382	69.	77.	103.	109.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-12/07/98	17	7.9	7.947	10.	6.6	0.876	0.936	6.6	7.15	8.45	9.6
00300	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	66	7.95	7.9	10.6	5.2	1.169	1.081	6.48	7.375	8.525	9.26
00310p	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	45	1.	1.84	5.	0.5	1.397	1.182	1.	1.	2.3	4.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	45	16.	16.978	32.	5.	32.022	5.659	10.	12.	21.	24.
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	83	7.07	7.097	8.8	6.04	0.181	0.425	6.584	6.8	7.3	7.56
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	83	7.07	6.923	8.8	6.04	0.211	0.46	6.584	6.8	7.3	7.56
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	83	0.085	0.119	0.912	0.002	0.016	0.126	0.028	0.05	0.158	0.261
00403p	PH, LAB, STANDARD UNITS SU	10/24/68-12/07/98	21	6.8	6.762	7.4	5.8	0.119	0.346	6.32	6.6	7.	7.16
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/24/68-12/07/98	21	6.8	6.598	7.4	5.8	0.148	0.384	6.32	6.6	7.	7.16
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-12/07/98	21	0.158	0.252	1.585	0.04	0.106	0.326	0.07	0.1	0.251	0.481
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-12/07/98	21	22.	20.429	28.	10.	24.457	4.945	13.2	16.5	24.	27.4
00500p	RESIDUE, TOTAL (MG/L)	10/24/68-12/07/98	21	82.	87.81	229.	38.	1361.062	36.893	58.	74.5	88.5	124.2
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-12/07/98	21	29.	29.524	88.	5.	252.962	15.905	13.6	22.	30.5	43.8
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-12/07/98	21	54.	58.286	141.	33.	589.014	24.27	36.	42.	67.5	94.4
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	46	5.	12.913	117.	1.5	549.57	23.443	1.5	2.5	10.	34.5
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	46	2.75	4.098	27.	0.5	18.162	4.262	1.5	2.375	4.25	8.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	46	2.5	9.587	90.	0.5	372.848	19.309	1.5	2.	5.25	25.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	64 ##	0.05	0.09	0.8	0.02	0.015	0.121	0.02	0.05	0.1	0.135
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	64 ##	0.005	0.008	0.04	0.005	0.	0.007	0.005	0.005	0.01	0.015
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	61	0.18	0.211	1.2	0.025	0.028	0.167	0.07	0.12	0.265	0.368
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	64	0.5	0.544	1.3	0.1	0.075	0.275	0.2	0.4	0.7	0.95
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	43	0.05	0.072	0.2	0.01	0.002	0.042	0.03	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	26	0.02	0.033	0.19	0.005	0.002	0.043	0.005	0.01	0.04	0.098
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	36	6.3	7.067	14.	4.	6.717	2.592	4.41	5.35	7.675	11.3
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	19	25.	27.105	42.	18.	44.655	6.682	20.	24.	30.	40.
00940	CHLORIDE, TOTAL IN WATER MG/L	10/24/88-12/07/98	18	7.5	7.833	12.	5.	4.382	2.093	5.	6.	9.25	11.1
00945	SULFATE, TOTAL (MGL AS SO4)	11/29/88-12/07/98	18	6.	6.167	10.	4.	1.912	1.383	4.9	5.	7.	7.3
01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-04/19/93	4 ##	3.75	3.25	5.	0.5	4.75	2.179	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/19/93	5 ##	5.	4.1	5.	0.5	4.05	2.012	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/19/93	5 ##	5.	6.	10.	5.	5.	2.236	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/19/93	5 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/19/93	5 ##	5.	6.	10.	5.	5.	2.236	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/19/93	5 ##	5.	15.	30.	5.	187.5	13.693	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	59	100.	372.881	3400.	50.	393562.244	627.345	50.	50.	400.	1100.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	59	2.	2.215	3.531	1.699	0.268	0.517	1.699	1.699	2.602	3.041
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				163.875								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	21 ##	0.05	0.062	0.2	0.05	0.001	0.035	0.05	0.05	0.05	0.1
70507p	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	37	0.02	0.025	0.1	0.005	0.001	0.023	0.005	0.008	0.04	0.05
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/19/93	6 ##	0.25	0.492	1.9	0.15	0.478	0.692	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	108	7.5	8.403	20.5	0.7	21.988	4.689	2.2	5.	11.65	15.06
00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-01/02/92	10	11.	25.35	150.	5.3	1950.641	44.166	5.44	6.775	20.5	137.2
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	54	91.	94.778	191.	59.	517.497	22.749	70.5	79.	107.	121.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/11/80-12/07/98	20	96.	104.8	214.	58.	1153.116	33.958	74.5	86.25	119.25	155.8
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-12/07/98	17	12.1	11.576	13.8	9.1	2.518	1.587	9.26	9.65	12.9	13.4
00300	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	90	11.05	11.021	15.4	5.8	3.075	1.754	8.7	10.	12.125	13.09
00310p	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	67	1.	1.74	9.	0.5	1.492	1.221	1.	1.	2.	2.84
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	66	15.	15.682	30.	6.	25.082	5.008	10.	12.	18.	24.

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	106	6.895	6.947	9.02	5.5	0.287	0.536	6.5	6.638	7.123	7.558
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	106	6.895	6.668	9.02	5.5	0.366	0.605	6.5	6.637	7.122	7.558
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	106	0.127	0.215	3.162	0.001	0.158	0.398	0.028	0.075	0.231	0.316
00403p	PH, LAB, STANDARD UNITS SU	10/24/68-12/07/98	28	6.65	6.689	7.4	6.1	0.109	0.33	6.3	6.5	6.8	7.31
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/24/68-12/07/98	28	6.647	6.587	7.4	6.1	0.12	0.347	6.3	6.5	6.8	7.31
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-12/07/98	28	0.225	0.259	0.794	0.04	0.03	0.172	0.049	0.158	0.316	0.501
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-12/07/98	28	17.	17.679	33.	6.	44.967	6.706	8.9	12.25	22.75	26.3
00500p	RESIDUE, TOTAL (MG/L)	10/24/68-12/07/98	28	82.	98.429	228.	65.	1532.18	39.143	69.	80.	106.25	151.3
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-12/07/98	28	27.5	29.107	77.	9.	214.173	14.635	14.7	21.	31.75	42.2
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-12/07/98	26	56.	66.077	157.	34.	809.514	28.452	42.8	51.75	63.	119.2
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	68	6.	12.721	163.	1.	451.54	21.249	2.5	2.5	16.	26.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	70	3.	3.807	27.	0.	12.814	3.58	1.	2.	5.	7.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	68	3.	9.544	136.	0.	321.214	17.922	1.5	2.5	11.75	22.1
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	91 ##	0.05	0.183	10.	0.005	1.088	1.043	0.02	0.05	0.09	0.124
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	91 ##	0.005	0.013	0.29	0.005	0.001	0.032	0.005	0.005	0.01	0.02
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	87	0.31	0.301	0.6	0.005	0.013	0.115	0.14	0.22	0.39	0.462
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	91	0.4	0.5	11.79	0.1	1.457	1.207	0.2	0.3	0.4	0.58
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	65 ##	0.05	0.064	0.2	0.02	0.001	0.03	0.04	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	50	0.02	0.025	0.09	0.005	0.	0.02	0.01	0.01	0.03	0.059
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	53	6.	6.494	18.	1.	7.117	2.668	3.76	5.	8.	10.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	24	27.5	28.792	44.	20.	48.259	6.947	21.5	22.5	33.	41.
00940	CHLORIDE, TOTAL IN WATER MG/L	10/24/88-12/07/98	25	9.	11.74	48.	2.5	88.898	9.429	6.	7.	11.5	24.2
00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-12/07/98	24	9.	8.583	12.	4.	3.471	1.863	6.	7.25	10.	11.
01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-04/19/93	7 ##	5.	4.286	5.	2.5	1.488	1.22	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/19/93	9 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/19/93	12 ##	5.	5.833	10.	5.	3.788	1.946	5.	5.	5.	10.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/19/93	12 ##	5.	6.25	20.	5.	18.75	4.33	5.	5.	5.	15.5
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/19/93	13 ##	5.	7.308	20.	5.	31.731	5.633	5.	5.	5.	20.
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/19/93	12	11.	12.5	30.	5.	60.273	7.764	5.	5.	18.75	27.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	91 ##	50.	347.802	3200.	50.	420439.56	648.413	50.	50.	300.	1020.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-07/06/94	91 ##	1.699	2.118	3.505	1.699	0.292	0.54	1.699	1.699	2.477	3.002
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			131.268								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	26 ##	0.05	0.242	4.7	0.05	0.828	0.91	0.05	0.05	0.063	0.13
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	41	0.03	0.135	4.199	0.005	0.424	0.652	0.005	0.01	0.05	0.076
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/19/93	13 ##	0.25	0.212	0.25	0.15	0.003	0.051	0.15	0.15	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/68-12/07/98	83	18.	18.014	28.	1.9	34.174	5.846	9.64	14.4	22.7	25.6
00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-01/02/92	11	4.	5.618	14.2	2.	15.37	3.92	2.	3.	8.2	13.56
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	37	87.	103.919	839.	13.	15661.965	125.148	70.4	77.	92.	99.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/11/80-12/07/98	16	87.5	88.313	112.	59.	154.629	12.435	70.2	83.	95.75	105.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	01/17/90-12/07/98	11	9.7	9.873	12.3	7.9	1.466	1.211	8.02	9.3	10.7	12.02
00300	OXYGEN, DISSOLVED MG/L	06/28/68-07/17/91	72	8.8	8.931	12.2	5.1	1.964	1.401	7.23	8.	9.95	10.8
00310p	BOD, 5 DAY, 20 DEG C MG/L	10/24/68-12/07/98	52	1.25	1.692	4.	0.5	0.889	0.943	1.	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	47	14.	15.085	26.	2.	23.906	4.889	9.8	12.	19.	22.
00400p	PH (STANDARD UNITS)	06/28/68-12/07/98	85	7.	7.029	8.9	4.45	0.3	0.547	6.364	6.8	7.37	7.548
00400p	CONVERTED PH (STANDARD UNITS)	06/28/68-12/07/98	85	7.	6.249	8.9	4.45	0.915	0.957	6.364	6.8	7.37	7.548
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/68-12/07/98	85	0.1	0.564	35.481	0.001	14.721	3.837	0.029	0.043	0.158	0.435
00403p	PH, LAB, STANDARD UNITS SU	10/24/68-12/07/98	24	6.7	6.683	7.	6.2	0.057	0.239	6.3	6.525	6.9	7.
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/24/68-12/07/98	24	6.7	6.616	7.	6.2	0.062	0.249	6.3	6.525	6.9	7.
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/68-12/07/98	24	0.2	0.242	0.631	0.1	0.023	0.152	0.1	0.126	0.3	0.515
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/24/68-12/07/98	24	18.	16.167	25.	8.	24.754	4.975	9.5	12.	20.	22.5
00500p	RESIDUE, TOTAL (MG/L)	10/24/68-12/07/98	24	76.	81.958	179.	63.	557.085	23.603	63.5	68.25	89.	99.5

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

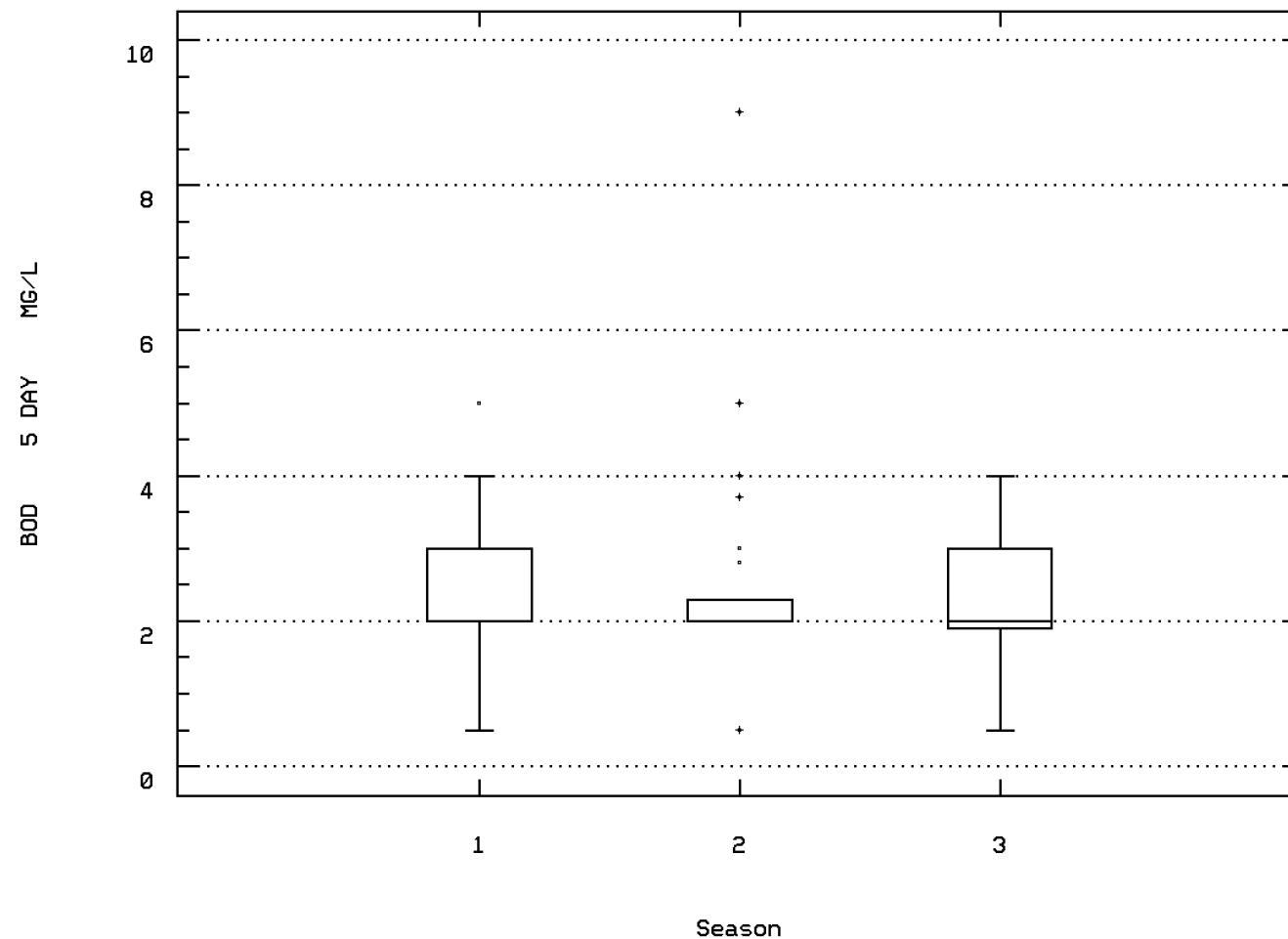
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	10/24/68-12/07/98	24	28.	25.917	50.	9.	85.123	9.226	14.5	17.5	30.75	37.5
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/28/69-12/07/98	24	52.	56.042	149.	35.	467.955	21.632	43.	45.75	56.5	72.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/28/69-12/07/98	52	5.	6.24	27.	0.5	30.103	5.487	2.5	2.5	7.75	13.7
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/24/68-12/07/98	52	2.5	3.24	24.	0.5	10.828	3.291	1.	1.5	4.	5.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/28/69-12/07/98	52	2.5	3.933	18.	0.	14.961	3.868	0.65	2.	5.	8.7
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-12/07/98	71 ##	0.05	0.066	0.8	0.02	0.009	0.093	0.02	0.05	0.05	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	71 ##	0.005	0.008	0.05	0.005	0.	0.007	0.005	0.005	0.01	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-12/07/98	63	0.17	0.19	0.4	0.025	0.006	0.079	0.1	0.13	0.25	0.306
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-12/07/98	68	0.4	0.462	1.899	0.05	0.071	0.266	0.2	0.3	0.5	0.71
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	41	0.05	0.074	0.4	0.03	0.003	0.058	0.042	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-04/24/91	34	0.01	0.029	0.36	0.005	0.004	0.061	0.005	0.01	0.03	0.035
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-07/11/96	42	6.05	6.502	13.	3.	4.458	2.111	4.09	5.	7.	9.
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	04/22/85-12/07/98	20	24.	27.05	52.	16.	96.787	9.838	18.	21.	28.	44.
00940	CHLORIDE, TOTAL IN WATER MG/L	10/24/88-12/07/98	18	8.	8.917	19.	2.5	11.949	3.457	6.55	7.	9.	15.4
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	11/29/88-12/07/98	18	7.	7.889	12.	6.	2.928	1.711	6.	7.	9.	11.1
01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-04/19/93	10 ##	2.5	2.6	5.	0.5	3.267	1.807	0.55	1.	5.	5.
01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/19/93	9 ##	5.	4.	5.	0.5	3.938	1.984	0.5	2.75	5.	5.
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/19/93	15 ##	5.	5.7	10.	0.5	6.279	2.506	3.2	5.	5.	10.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/19/93	14 ##	5.	9.143	40.	5.	86.44	9.297	5.	5.	10.	26.5
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/19/93	12 ##	5.	7.208	14.	0.5	16.612	4.076	1.55	5.	10.	13.7
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/19/93	15 ##	5.	10.8	27.	5.	57.457	7.58	5.	5.	20.	22.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	67	100.	847.761	8000.	50.	3718669.154	1928.385	50.	50.	400.	3200.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-07/06/94	67	2.	2.243	3.903	1.699	0.465	0.682	1.699	1.699	2.602	3.502
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	174.917								
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-08/07/80	27 ##	0.05	0.053	0.1	0.025	0.	0.014	0.05	0.05	0.05	0.06
70507p	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/07/98	38	0.02	0.028	0.1	0.005	0.	0.021	0.005	0.01	0.05	0.05
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/19/93	12 ##	0.25	0.229	0.5	0.15	0.01	0.099	0.15	0.15	0.25	0.425

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0065 Parameter Code: 00310

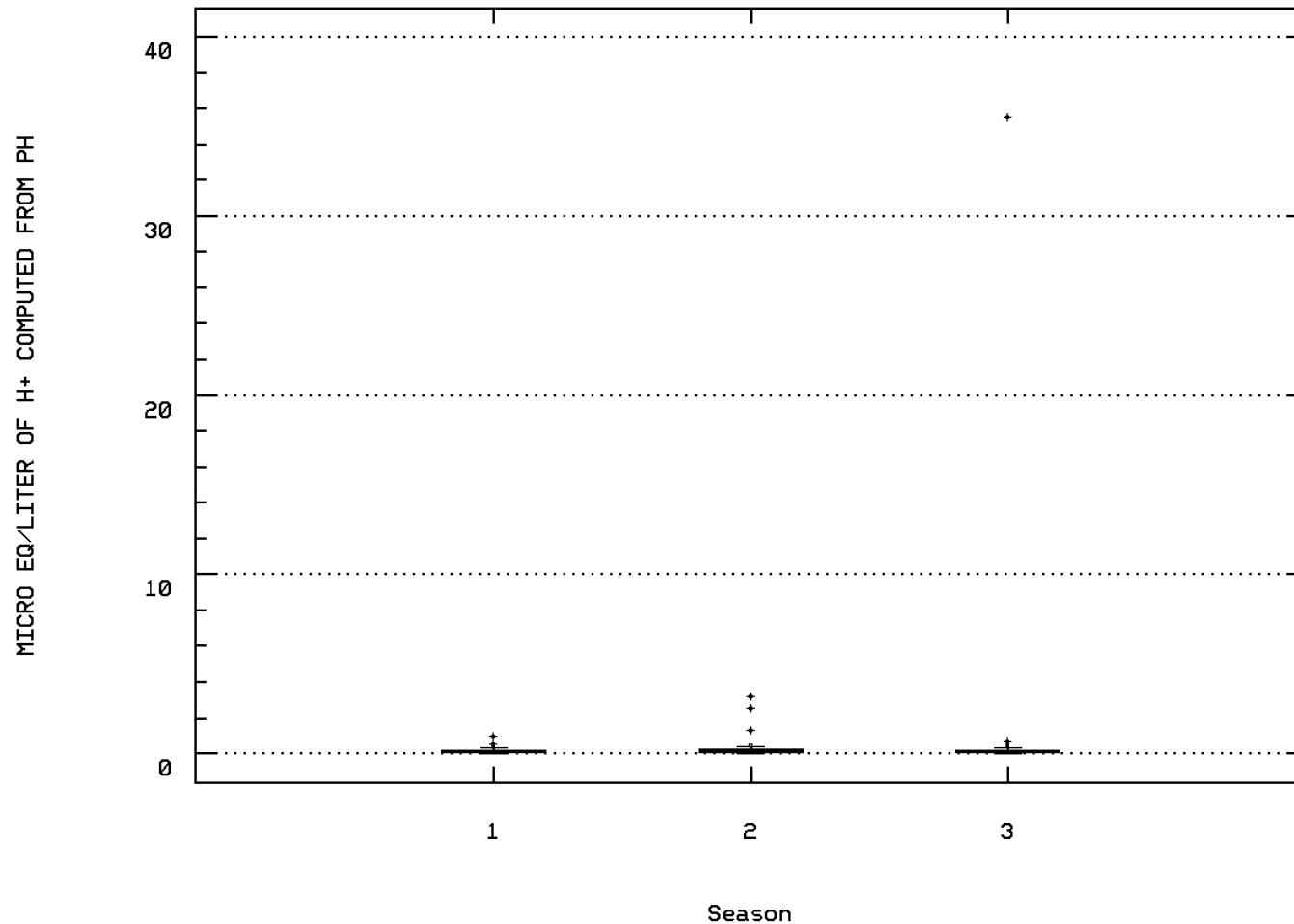
BOD, 5 DAY, 20 DEG C



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00400

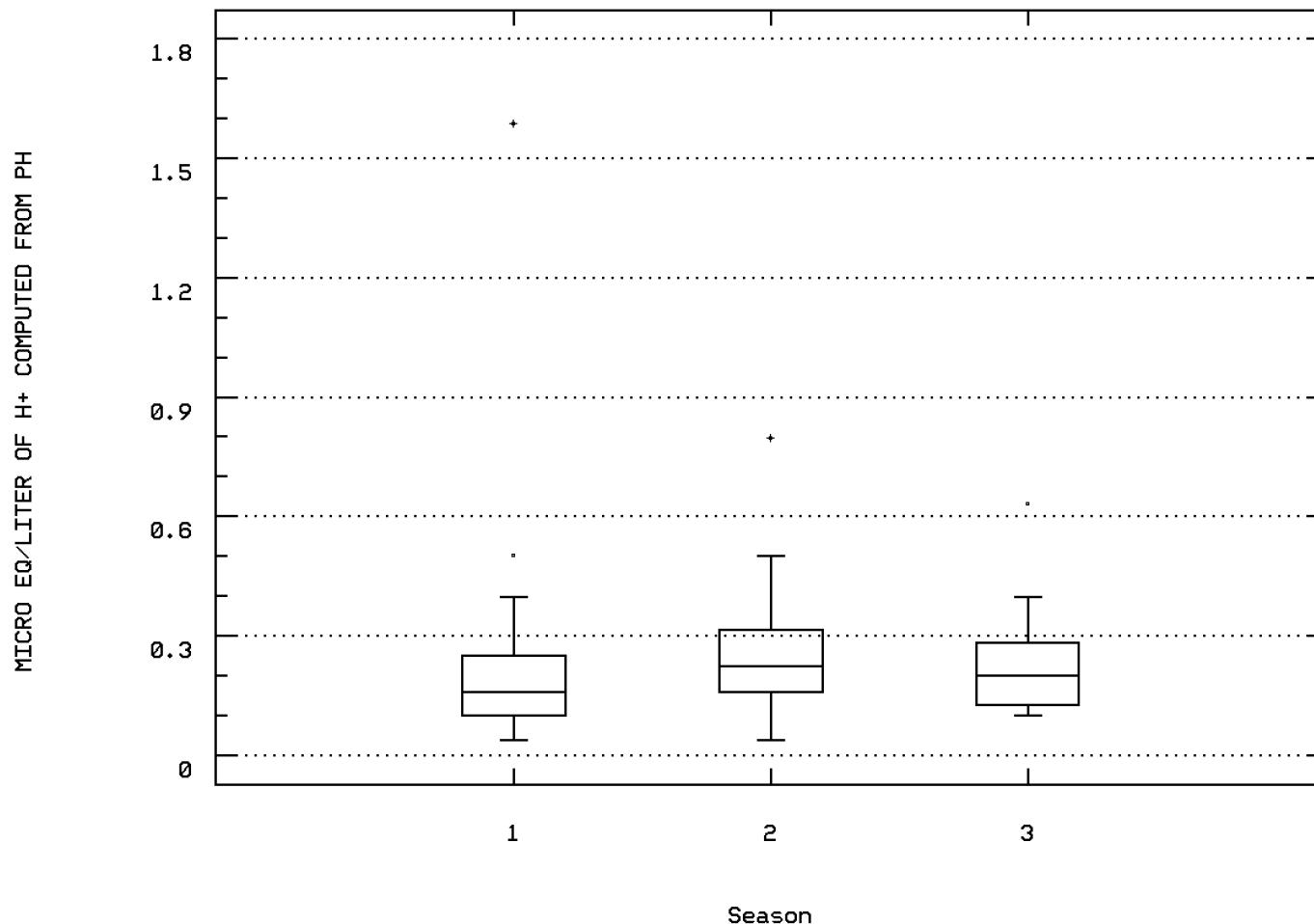
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00403

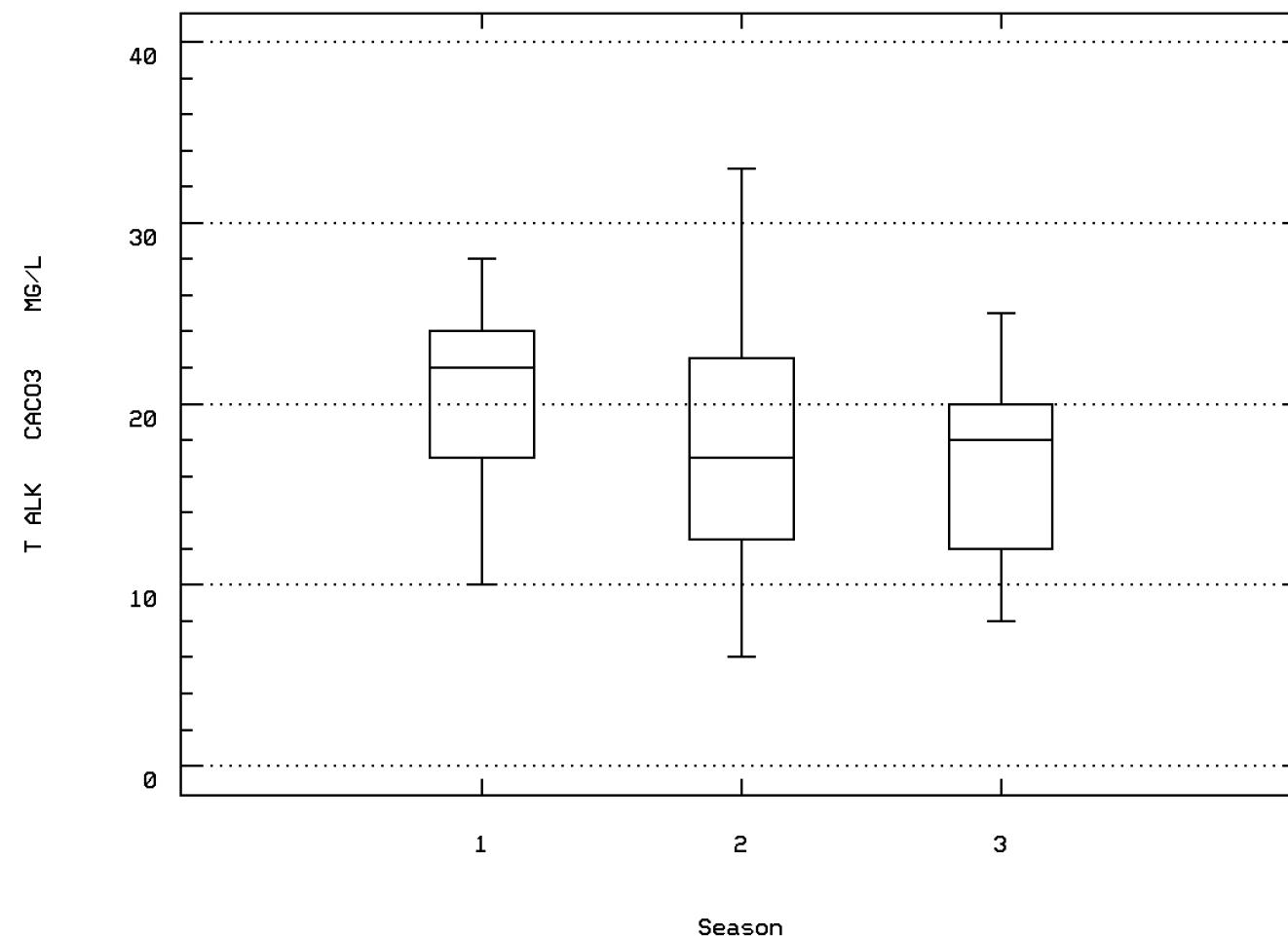
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00410

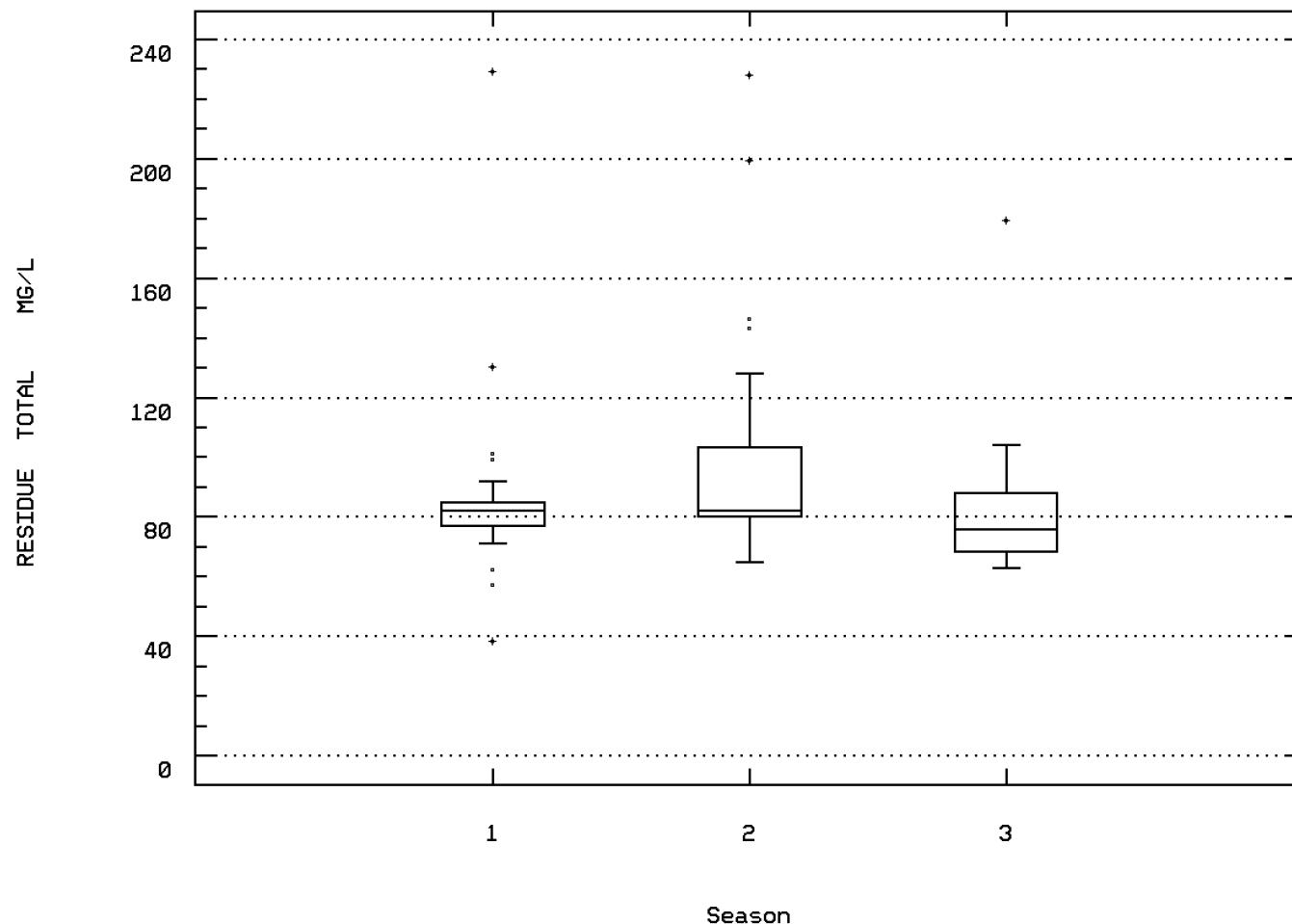
ALKALINITY, TOTAL (MG/L AS CACO<sub>3</sub>)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00500

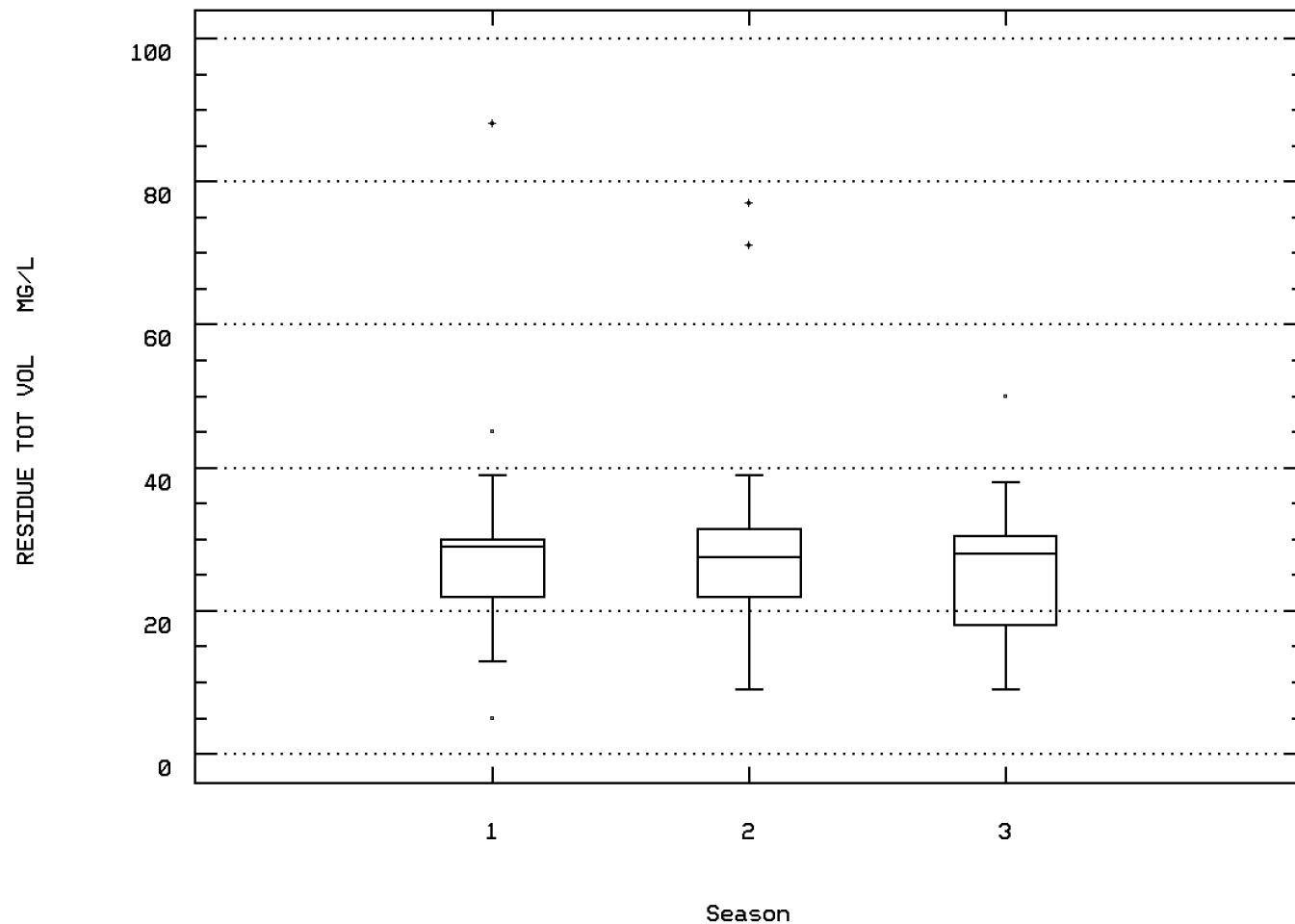
RESIDUE, TOTAL (MG/L)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00505

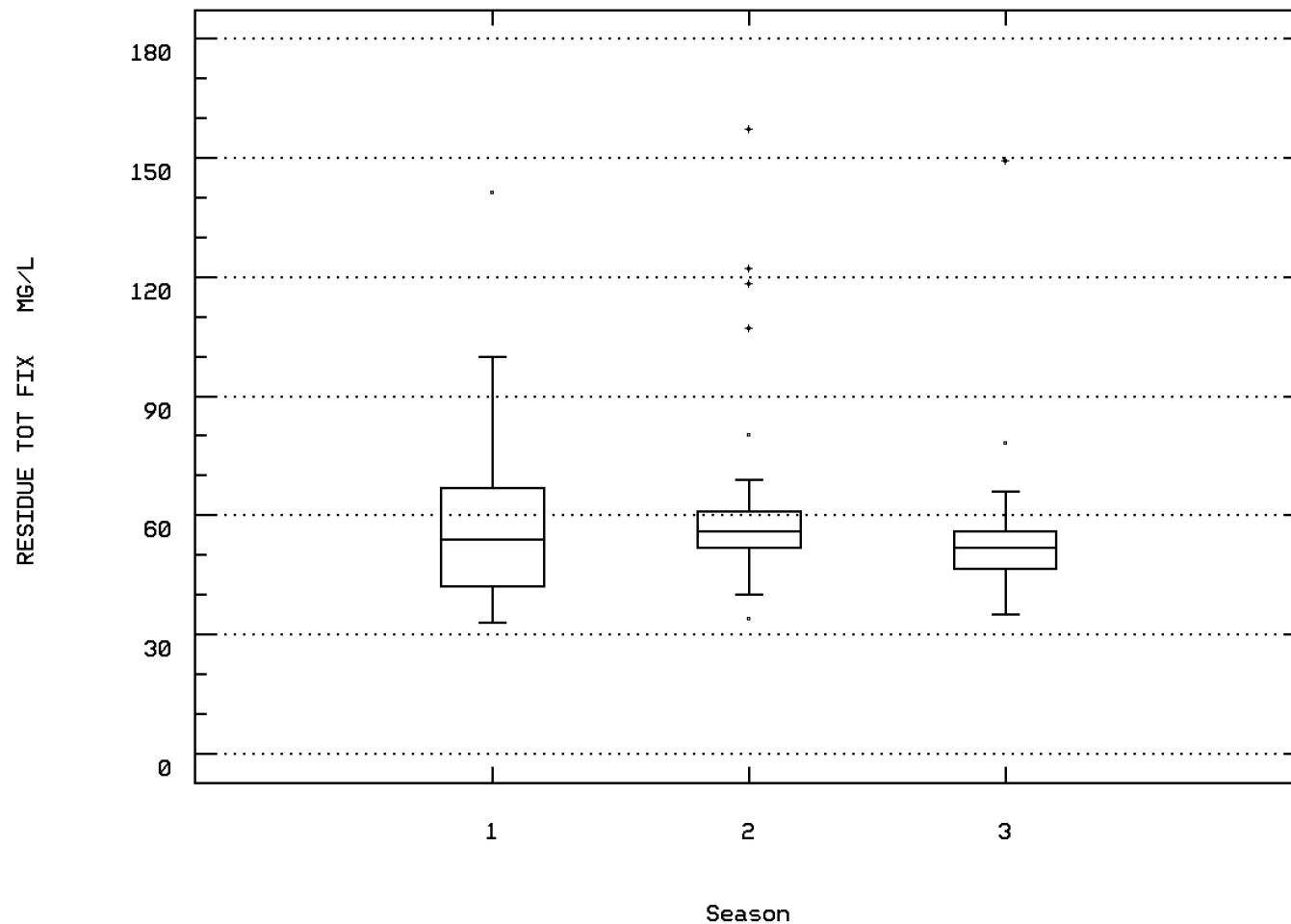
RESIDUE, TOTAL VOLATILE (MG/L)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00510

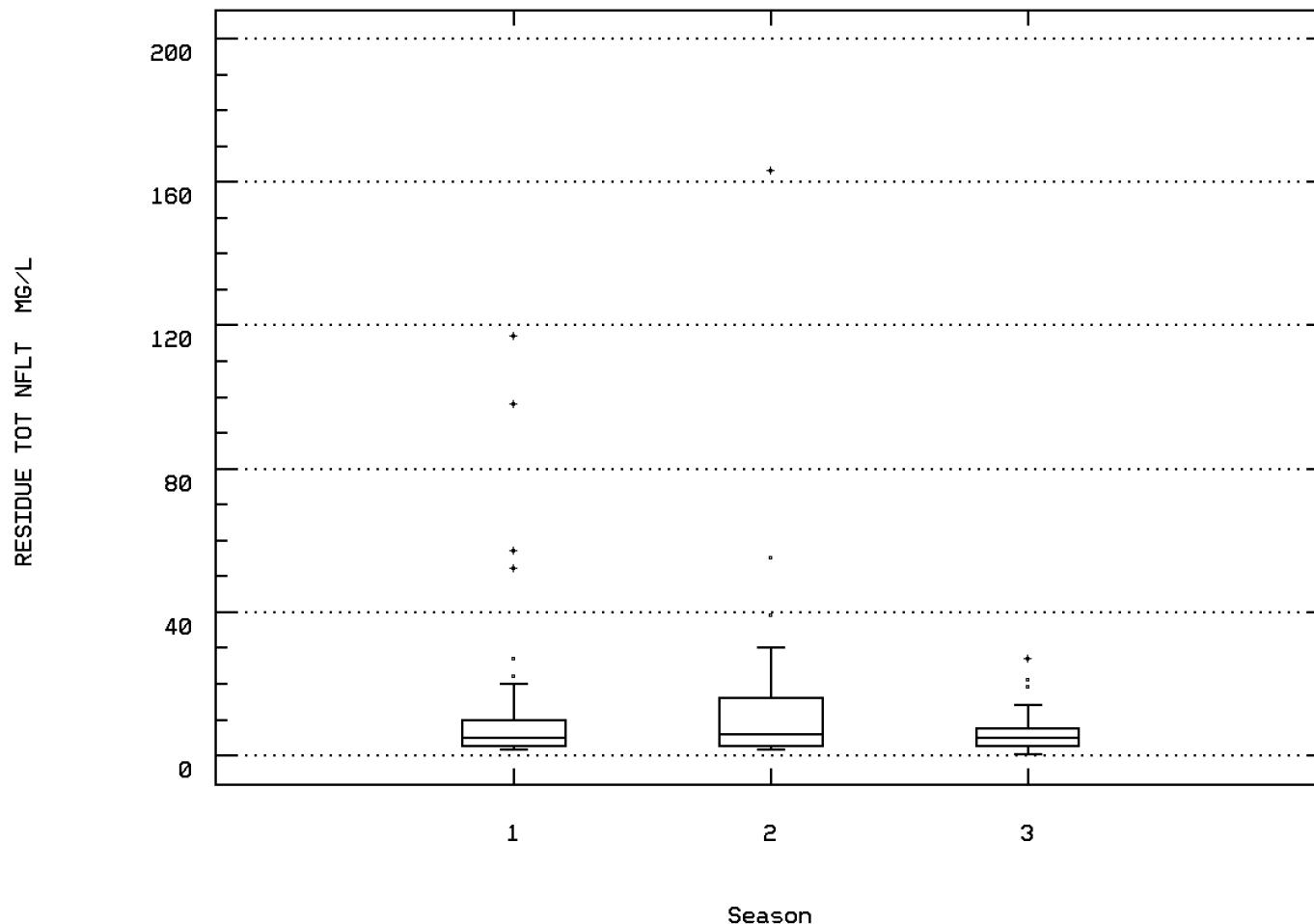
RESIDUE, TOTAL FIXED (MG/L)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00530

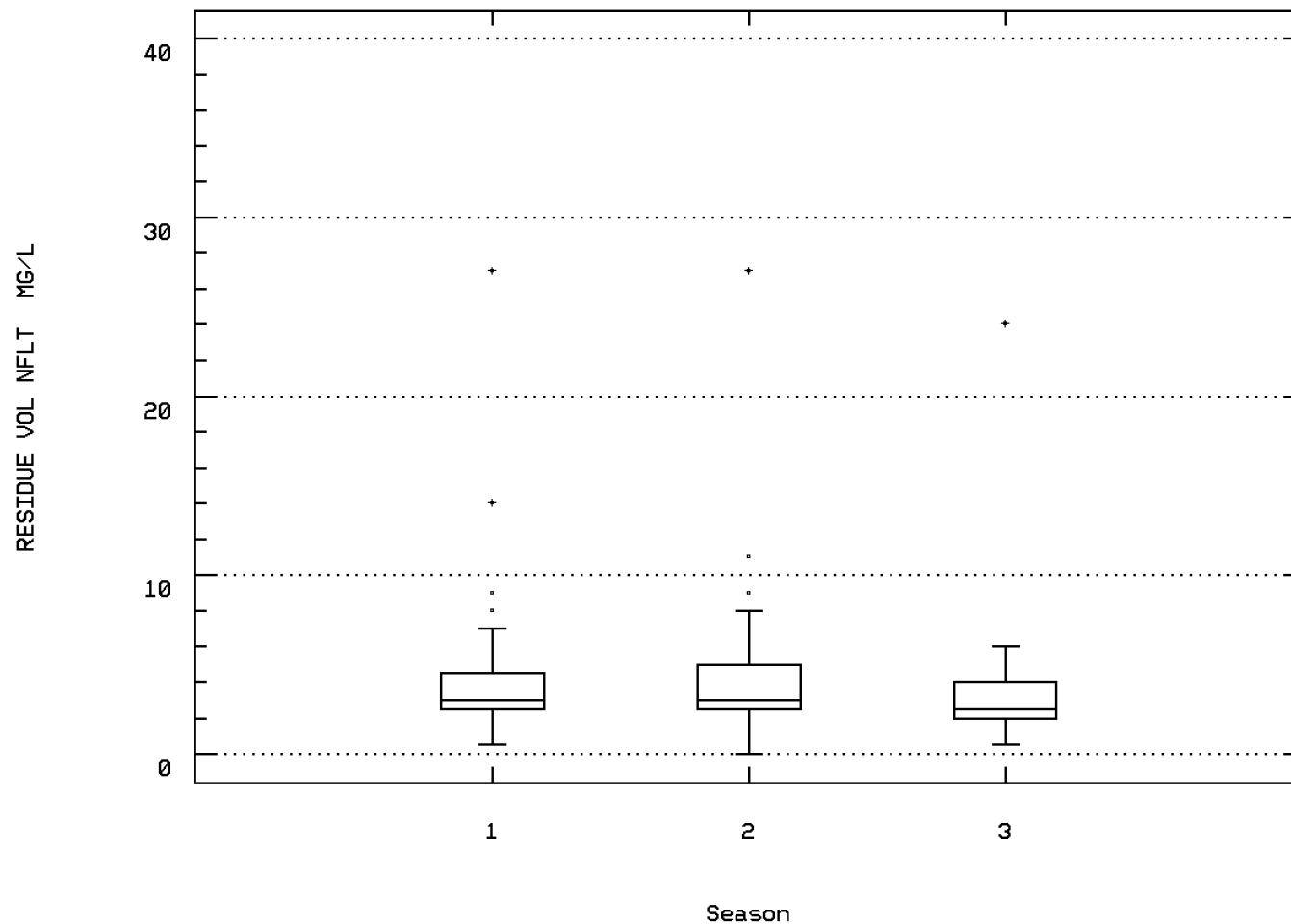
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00535

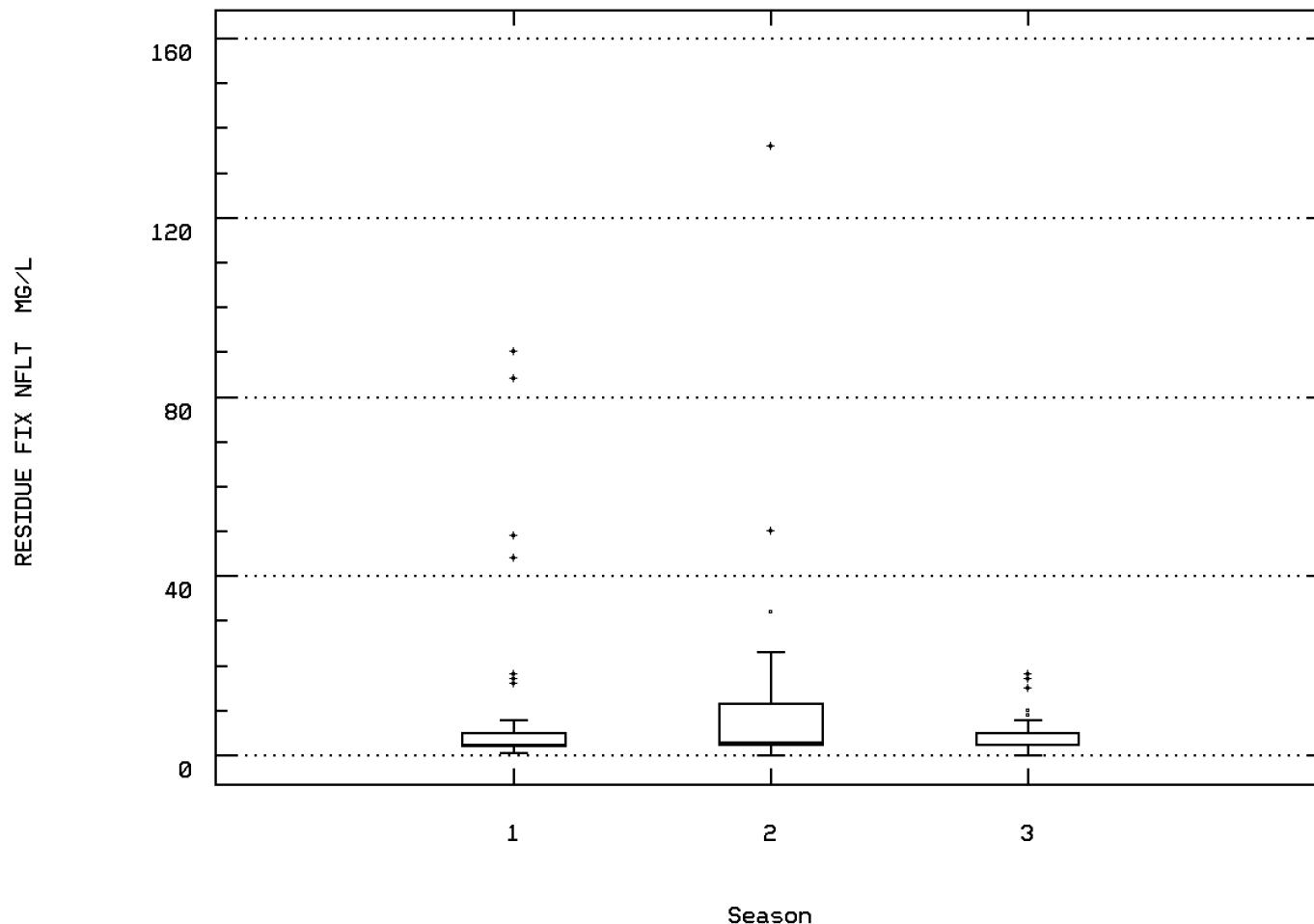
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00540

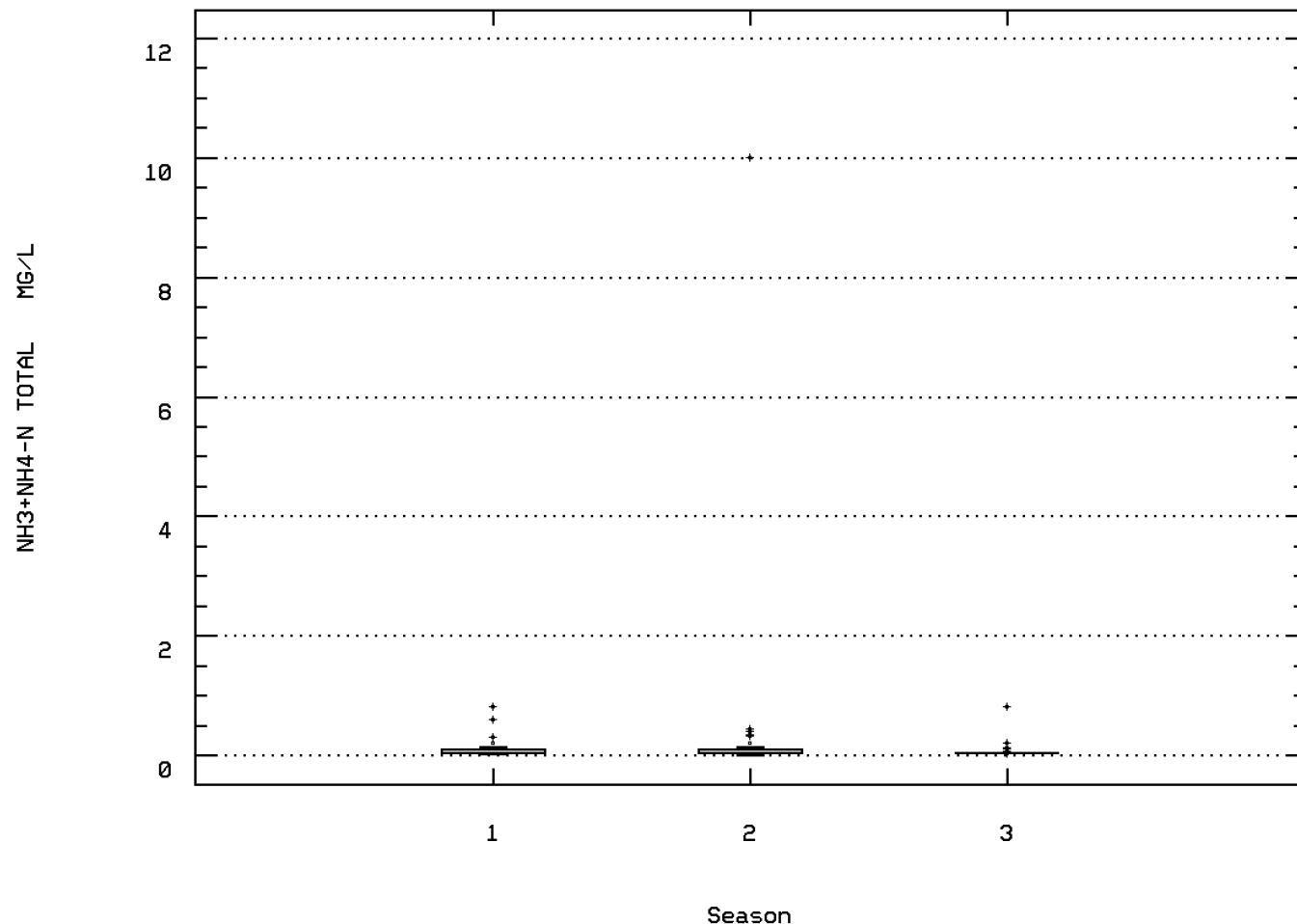
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00610

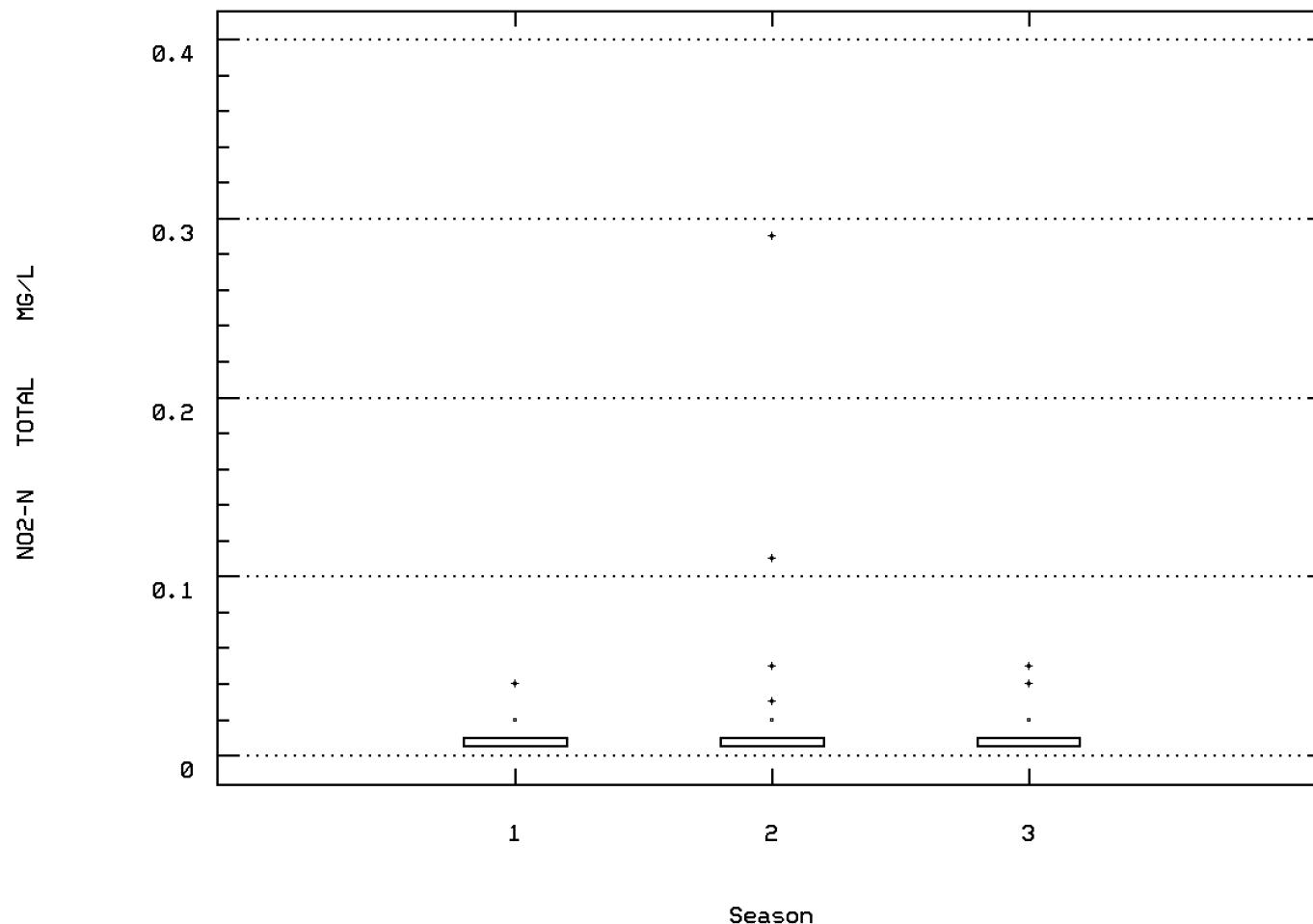
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00615

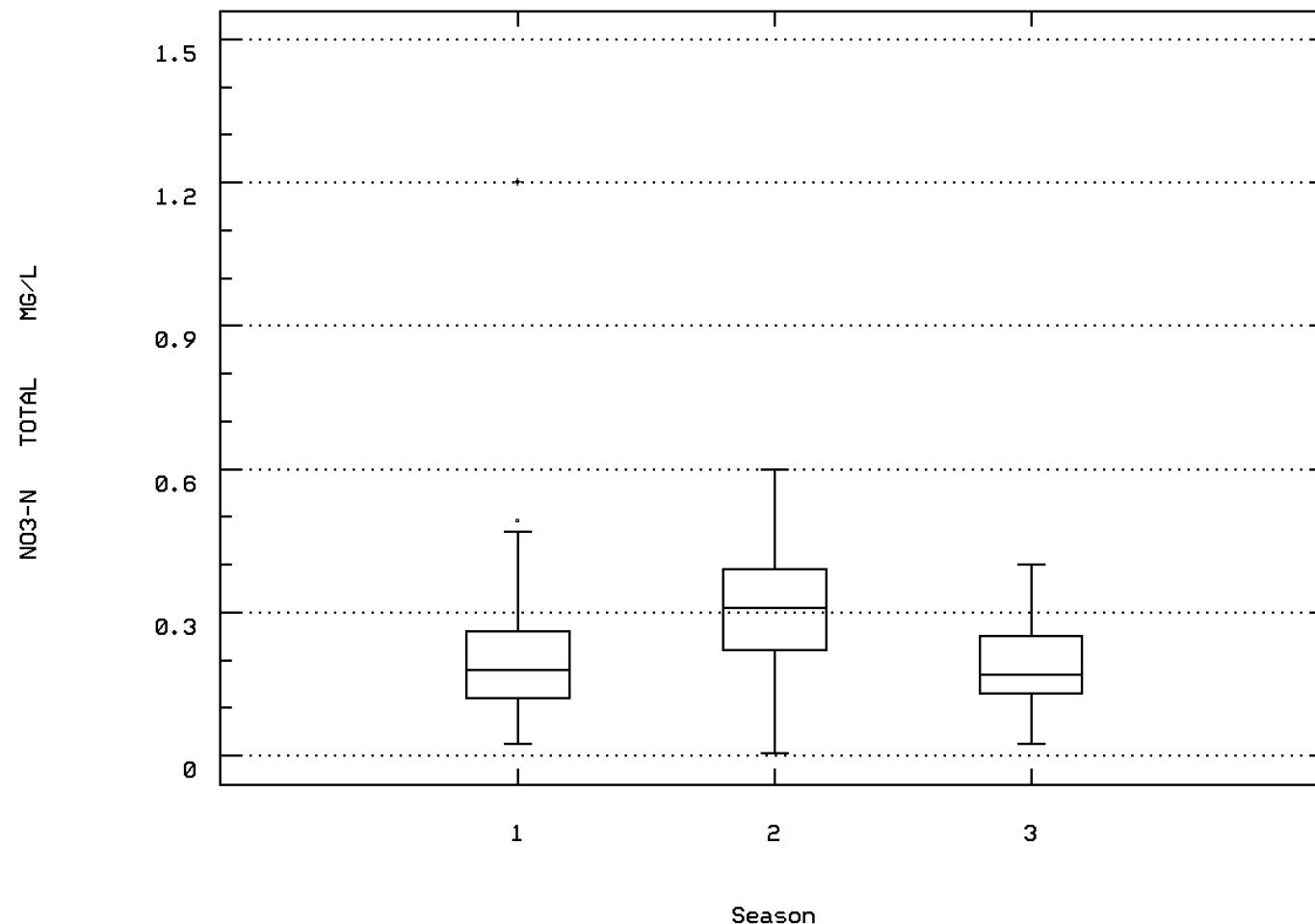
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00620

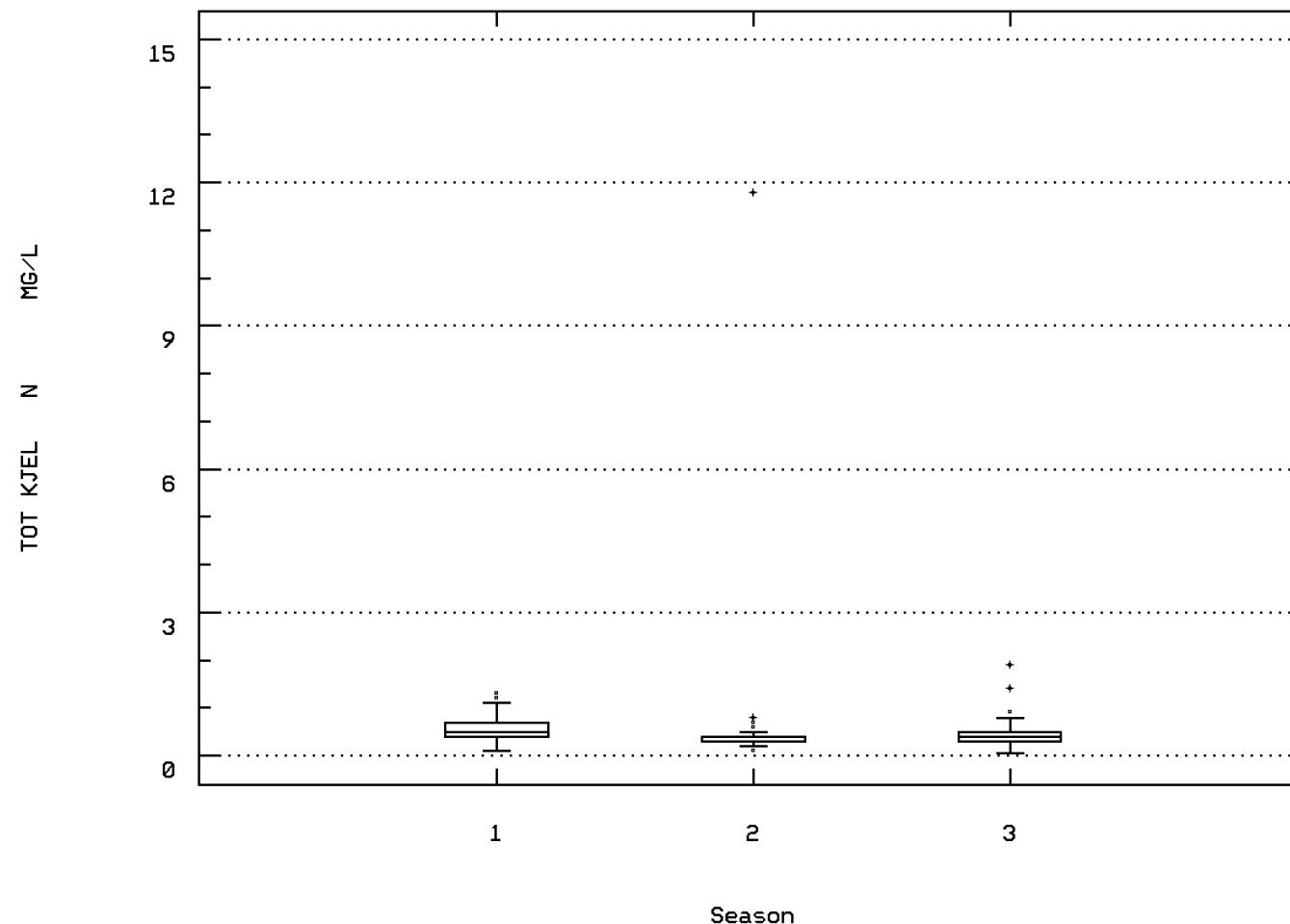
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 00625

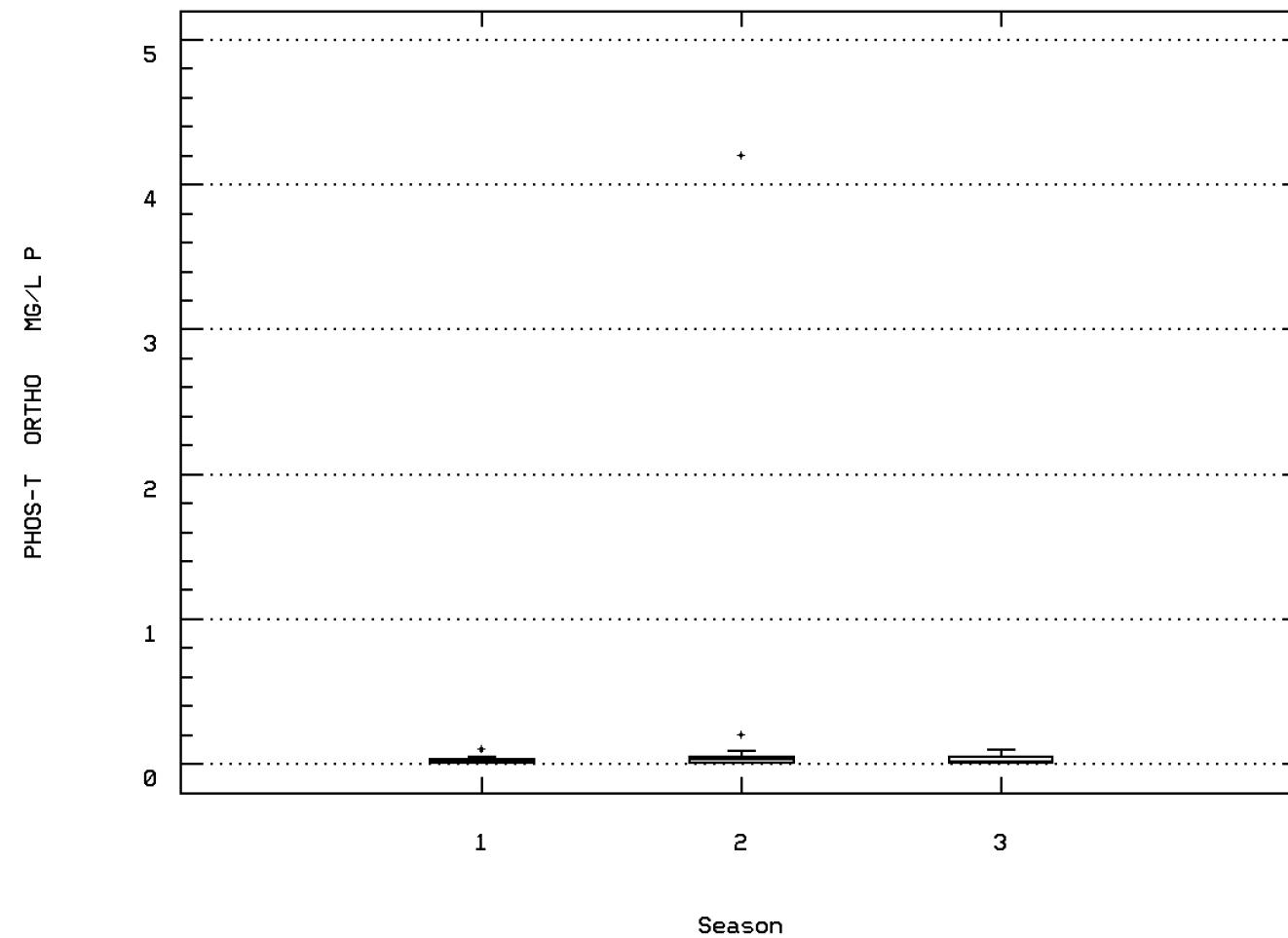
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 1 BRIDGE

Station: RICH0065 Parameter Code: 70507

PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/



RT. 1 BRIDGE

## Station Inventory for Station: RICH0066

NPS Station ID: RICH0066  
 Location: APPROX 100 YDS FROM MOUTH OF CREEK  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206047  
 RF3 Index: 02080206004709.76  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: GRINDALL CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.440170/ -77.431920

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-GRK000.05 /VA2-07-X0087/VA2-4X0087  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.350  
 RF3 Mile Point: 10.20

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.03

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0066

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	65	18.3	16.863	30.	0.1	50.045	7.074	6.28	12.35	22.2
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	66	8.4	8.692	14.	6.8	1.956	1.398	7.14	7.6	9.6
00310	BOD, 5 DAY, 20 DEG C MG/L	03/26/75-06/21/79	39	2.	4.436	38.	1.	43.726	6.613	1.	2.	4.
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	65	7.1	7.186	8.2	6.3	0.135	0.368	6.76	7.	7.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	65	7.1	7.036	8.2	6.3	0.158	0.398	6.76	7.	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	65	0.079	0.092	0.501	0.006	0.008	0.088	0.029	0.032	0.1
00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/21/79	59	248.	242.305	549.	79.	6441.629	80.26	167.	179.	275.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/21/79	58	65.5	67.966	187.	4.	837.543	28.94	35.7	52.25	82.75
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/21/79	59	174.	165.712	470.	11.	6004.519	77.489	75.	118.	198.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	61	15.	24.803	126.	0.5	851.852	29.187	4.	6.5	32.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	61	8.	10.262	40.	0.5	58.922	7.676	2.	4.	16.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	61	4.	14.574	104.	0.	579.665	24.076	0.1	1.	16.
00545	RESIDUE, SETTLEABLE (ML/L)	03/01/77-03/01/77	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	64	8.	8.57	19.5	0.05	30.714	5.542	0.5	3.824	13.
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	63	0.04	0.238	3.5	0.005	0.28	0.529	0.005	0.01	0.25
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	52	0.49	1.394	8.	0.05	3.715	1.927	0.08	0.165	1.897
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	64	11.295	11.144	23.19	0.3	41.493	6.441	2.399	5.249	16.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	12	1.1	2.282	12.19	0.025	12.768	3.573	0.025	0.283	2.075
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/26/75-06/21/79	42	18.	20.167	143.	3.	396.972	19.924	11.3	14.	21.
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	61	28.	30.334	160.	0.4	460.789	21.466	11.2	22.	35.
01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3 ##	1.	2.5	6.	0.5	9.25	3.041	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4 ##	5.	3.875	5.	0.5	5.063	2.25	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	01/29/73-11/17/77	8 ##	5.	12.5	60.	5.	371.429	19.272	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	01/29/73-11/17/77	8 ##	5.	6.25	10.	5.	5.357	2.315	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	01/29/73-11/17/77	7	10.	11.5	29.	1.5	99.25	9.962	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	7 ##	50.	50.	50.	50.	0.	0.	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	01/29/73-11/17/77	8	55.	51.25	80.	20.	412.5	20.31	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	63 ##	50.	525.873	8000.	30.	2374414.951	1540.914	50.	50.	100.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	63 ##	1.699	1.976	3.903	1.477	0.357	0.598	1.699	1.699	2.
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				94.517							2.959
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-08/03/74	2	1.75	1.75	2.5	1.	1.125	1.061	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	64	4.75	4.683	10.	0.05	7.316	2.705	0.7	2.625	6.15
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	64	4.	3.963	9.	0.005	5.48	2.341	0.075	2.199	5.674

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71900	MERCURY, TOTAL (UG/L AS HG)	01/29/73-11/17/77	8##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0066

Parameter	Std. Type	Std. Value	Total	Exceed	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	66	0	0.00	20	0	0.00	25	0	0.00	21	0	0.00			
00400	PH	Fresh Chronic	9.	65	0	0.00	19	0	0.00	25	0	0.00	21	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Other-Lo Lim.	6.5	65	3	0.05	19	1	0.05	25	1	0.04	21	1	0.05			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	1.	63	3	0.05	19	0	0.00	23	1	0.04	21	2	0.10			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	52	0	0.00	18	0	0.00	20	0	0.00	14	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Drinking Water	10.	12	1	0.08	1	0	0.00	4	0	0.00	7	1	0.14			
		Fresh Acute	860.	61	0	0.00	17	0	0.00	23	0	0.00	21	0	0.00			
		Drinking Water	250.	61	0	0.00	17	0	0.00	23	0	0.00	21	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	50.	3	0	0.00	1	0	0.00				2	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00	1	0	0.00									
		Drinking Water	5.	1 &	0	0.00	1	0	0.00									
01034	CHROMIUM, TOTAL	Drinking Water	100.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			
		Drinking Water	1300.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	7	0	0.00	1	0	0.00	3	0	0.00	3	0	0.00			
		Drinking Water	15.	7	2	0.29	1	1	1.00	3	0	0.00	3	1	0.33			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00			
		Drinking Water	100.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			
		Drinking Water	5000.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	63	12	0.19	19	6	0.32	23	4	0.17	21	2	0.10			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	2	2	1.00	2	2	1.00									
71900	MERCURY, TOTAL	Fresh Acute	2.4	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			
		Drinking Water	2.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1972 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	2	17.2	17.2	21.1	13.3	30.42	5.515	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	2	8.4	8.4	9.8	7.	3.92	1.98	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	2	7.6	7.6	8.2	7.	0.72	0.849	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	2	7.274	7.274	8.2	7.	0.932	0.965	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	2	0.053	0.053	0.1	0.006	0.004	0.066	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	2	45.5	45.5	87.	4.	3444.5	58.69	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	2	9.	9.	14.	4.	50.	7.071	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	2	36.5	36.5	73.	0.	2664.5	51.619	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	1	4.5	4.5	4.5	4.5	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	1	5.099	5.099	5.099	5.099	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	1	8.	8.	8.	8.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	2 ##	1225.	1225.	2400.	50.	2761250.	1661.701	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	2 ##	2.54	2.54	3.38	1.699	1.413	1.189	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	346.41								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	1	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	1	2.	2.	2.	2.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	8	21.1	18.75	25.	7.8	42.257	6.501	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	9	8.	8.7	12.	7.	3.15	1.775	7.	7.45	10.4	12.
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	9	7.	6.9	7.	6.7	0.015	0.122	6.7	6.8	7.	7.
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	9	7.	6.884	7.	6.7	0.015	0.124	6.7	6.8	7.	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	9	0.1	0.131	0.2	0.1	0.001	0.038	0.1	0.1	0.158	0.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	23.	21.778	41.	8.	112.944	10.628	8.	12.5	29.	41.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	8.	10.111	22.	3.	45.111	6.716	3.	5.	16.	22.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	7.	11.667	29.	2.	111.5	10.559	2.	3.	23.5	29.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	9	7.	7.311	15.5	0.1	32.154	5.67	0.1	1.6	13.	15.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	9 ##	0.005	0.021	0.1	0.005	0.001	0.032	0.005	0.005	0.025	0.1
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	9	8.5	9.4	21.	1.	47.405	6.885	1.	2.55	14.5	21.
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	9	26.	26.778	41.	9.	119.944	10.952	9.	17.5	37.5	41.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	9 ##	50.	1211.111	6000.	50.	5384236.111	2320.396	50.	50.	2300.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	9 ##	1.699	2.181	3.778	1.699	0.768	0.876	1.699	1.699	2.827	3.778
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	151.557								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	9	5.3	5.	10.	0.1	13.288	3.645	0.1	1.1	8.5	10.
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	9	5.	3.894	8.	0.05	7.815	2.796	0.05	0.65	5.65	8.

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### Annual Analysis for 1974 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	11	18.3	17.373	26.7	8.9	35.126	5.927	9.12	12.2	22.8	26.14
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	11	8.8	8.709	10.4	7.	1.499	1.224	7.	7.2	9.8	10.32
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	11	7.	7.2	7.5	7.	0.054	0.232	7.	7.	7.4	7.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	11	7.	7.148	7.5	7.	0.057	0.239	7.	7.	7.4	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	11	0.1	0.071	0.1	0.032	0.001	0.033	0.032	0.04	0.1	0.1
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	10	24.	40.9	126.	6.	1758.767	41.938	6.5	11.75	65.5	124.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	10	14.	13.1	22.	2.	49.878	7.062	2.2	7.	20.	21.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	10	10.	27.8	104.	2.	1460.622	38.218	2.1	3.	47.	102.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	11	6.	8.731	17.	0.05	39.775	6.307	0.36	3.399	15.	16.8

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### Annual Analysis for 1974 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	10	0.01	0.012	0.02	0.005	0.	0.006	0.005	0.005	0.02	0.02
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	11	9.	12.218	22.	0.4	51.358	7.166	1.6	6.599	19.	21.6
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	10	30.	30.9	50.	17.	94.767	9.735	17.5	22.75	38.5	49.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	11 ##	50.	52.727	100.	30.	281.818	16.787	34.	50.	50.	90.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	11 ##	1.699	1.706	2.	1.477	0.014	0.118	1.521	1.699	1.699	1.94
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				50.836								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	11	5.4	5.345	10.	2.2	7.443	2.728	2.28	2.9	8.	9.8
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	11	5.199	4.781	9.	1.199	6.643	2.577	1.379	2.399	7.199	8.8

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### Annual Analysis for 1975 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	12	18.3	18.467	23.9	10.	19.475	4.413	10.84	15.15	22.2	23.57
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	12	8.6	8.517	10.4	7.	1.087	1.043	7.06	7.55	9.	10.28
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	12	7.05	7.142	7.5	6.7	0.075	0.275	6.73	7.	7.45	7.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	12	7.047	7.065	7.5	6.7	0.082	0.286	6.73	7.	7.45	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	12	0.09	0.086	0.2	0.032	0.003	0.053	0.032	0.036	0.1	0.187
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	34.	35.333	120.	4.	1232.	35.1	4.	11.	43.	120.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	18.	16.333	40.	2.	143.	11.958	2.	6.	22.5	40.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	12.	19.	80.	2.	579.5	24.073	2.	5.	22.5	80.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	11	13.	10.445	18.	0.2	35.843	5.987	0.94	5.	15.	17.6
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	11	0.03	0.093	0.37	0.005	0.016	0.126	0.005	0.005	0.19	0.35
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	11	13.	12.626	23.19	0.8	54.897	7.409	1.5	5.199	19.	22.752
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	11	27.	30.909	96.	10.	529.891	23.019	10.4	20.	34.	83.8
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	12 ##	50.	679.167	6000.	50.	2925208.333	1710.324	50.	50.	387.5	4560.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	12 ##	1.699	2.071	3.778	1.699	0.506	0.712	1.699	1.699	2.449	3.568
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				117.648								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	11	5.	4.686	8.4	0.05	7.305	2.703	0.1	3.8	7.1	8.32
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	11	4.5	4.318	8.	0.05	6.027	2.455	0.05	3.799	5.599	7.8

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### Annual Analysis for 1976 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	8	22.8	21.613	30.	8.9	46.53	6.821	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	8	8.1	8.413	9.6	7.6	0.464	0.681	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	7	7.3	7.086	7.8	6.3	0.365	0.604	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	7	7.3	6.769	7.8	6.3	0.482	0.694	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	7	0.05	0.17	0.501	0.016	0.036	0.19	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	8	11.	15.5	40.	2.	166.571	12.906	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	8	8.	7.75	16.	2.	24.5	4.95	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	8	5.	7.75	24.	0.	77.071	8.779	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	8	6.45	8.037	19.5	0.3	54.037	7.351	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	8	0.235	0.288	0.9	0.01	0.089	0.299	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	8	12.99	11.957	22.	2.599	58.707	7.662	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	8	30.5	28.5	38.	5.	114.	10.677	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	7 ##	50.	85.714	200.	50.	3095.238	55.635	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	7 ##	1.699	1.871	2.301	1.699	0.056	0.237	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				74.3								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	8	5.5	6.188	9.4	4.	4.284	2.07	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	8	5.	4.9	6.5	3.	1.56	1.249	**	**	**	**

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### Annual Analysis for 1977 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	10	7.5	9.55	21.	1.4	62.907	7.931	1.47	2.1	18.25	20.8
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	10	8.5	9.12	12.	7.2	2.168	1.473	7.29	8.175	10.25	11.9
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	10	7.45	7.26	8.	6.4	0.223	0.472	6.44	6.875	7.525	7.96
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	10	7.447	7.021	8.	6.4	0.286	0.535	6.44	6.875	7.525	7.96
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/21/79	10	0.036	0.095	0.398	0.01	0.014	0.117	0.012	0.03	0.134	0.374
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	4.	18.556	95.	0.5	934.215	30.565	0.5	2.25	26.	95.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	3.	6.778	21.	0.5	54.632	7.391	0.5	1.25	13.	21.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	2.	11.889	74.	0.5	594.049	24.373	0.5	0.75	13.	74.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	10	5.15	6.235	13.	0.05	24.533	4.953	0.115	1.749	11.875	13.
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	10	0.18	0.339	1.5	0.005	0.199	0.446	0.011	0.06	0.448	1.406
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	10	6.4	7.778	15.	0.3	28.8	5.367	0.65	3.874	14.79	14.979
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	9	31.	40.822	160.	0.4	2194.134	46.842	0.4	15.5	41.5	160.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	9##	50.	138.889	600.	50.	36736.111	191.667	50.	50.	175.	600.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	9##	1.699	1.905	2.778	1.699	0.173	0.416	1.699	1.699	2.088	2.778
	GEOMETRIC MEAN =				80.416								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	10	5.05	4.455	9.4	0.05	9.207	3.034	0.135	1.575	6.7	9.19
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	10	3.35	3.322	6.5	0.005	7.848	2.801	0.006	0.01	6.05	6.47

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	9	20.	17.9	27.	0.1	61.915	7.869	0.1	14.5	23.	27.
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	9	7.6	8.5	14.	6.8	5.04	2.245	6.8	7.4	9.	14.
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	9	7.5	7.378	7.7	7.	0.057	0.239	7.	7.15	7.5	7.7
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	9	7.5	7.314	7.7	7.	0.061	0.248	7.	7.15	7.5	7.7
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/21/79	9	0.032	0.048	0.1	0.02	0.001	0.03	0.02	0.032	0.075	0.1
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	9.	16.778	84.	3.	659.444	25.68	3.	3.5	15.5	84.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	7.	7.889	18.	2.	27.361	5.231	2.	3.5	11.5	18.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	9	1.	9.	66.	0.	464.938	21.562	0.	0.25	6.	66.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	9	9.5	8.955	13.	1.599	12.532	3.54	1.599	7.5	12.25	13.
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	9	0.11	0.757	3.5	0.01	1.306	1.143	0.01	0.045	1.15	3.5
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	9	11.59	11.432	16.5	2.199	23.122	4.809	2.199	8.3	16.	16.5
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	8	26.5	28.	39.	17.	56.286	7.502	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	9##	50.	983.333	8000.	50.	6945625.	2635.455	50.	50.	275.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	9##	1.699	2.055	3.903	1.699	0.59	0.768	1.699	1.699	2.199	3.903
	GEOMETRIC MEAN =				113.497								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	9	3.8	3.811	7.8	0.5	4.614	2.148	0.5	2.2	4.9	7.8
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	9	3.5	3.478	7.8	0.5	4.625	2.15	0.5	1.95	4.55	7.8

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	5	12.5	13.9	21.5	10.	23.175	4.814	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	5	8.8	9.12	10.6	8.	0.932	0.965	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	5	7.2	7.26	7.5	7.	0.053	0.23	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	5	7.2	7.214	7.5	7.	0.056	0.236	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/21/79	5	0.063	0.061	0.1	0.032	0.001	0.03	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	5	9.	11.4	20.	7.	28.3	5.32	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	5	8.	9.	16.	5.	17.5	4.183	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	5	2.	2.4	4.	1.	2.3	1.517	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	5	12.5	12.	16.	8.	8.875	2.979	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	5	0.06	0.23	0.9	0.04	0.141	0.375	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	5	15.8	14.78	17.6	10.3	7.722	2.779	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	5	27.	26.6	30.	22.	10.3	3.209	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	4##	50.	87.5	200.	50.	5625.	75.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	4##	1.699	1.849	2.301	1.699	0.091	0.301	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	70.711								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	5	2.7	2.7	3.4	1.9	0.435	0.66	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	5	2.5	2.56	3.4	1.7	0.443	0.666	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	20	22.8	22.27	27.8	2.9	24.942	4.994	19.12	21.775	24.3	26.8
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	20	7.45	7.645	8.8	6.8	0.278	0.528	7	7.2	8	8.2
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	19	7.3	7.242	8.2	6.3	0.239	0.489	6.6	7	7.5	8
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	19	7.3	7.001	8.2	6.3	0.301	0.548	6.6	7	7.5	8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	19	0.05	0.1	0.501	0.006	0.014	0.118	0.01	0.032	0.1	0.251
00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/21/79	19	258.	239.	403.	79.	6338.667	79.616	83.	230.	268.	311.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/21/79	18	58.5	59.444	121.	4.	697.438	26.409	28.3	38.25	72.25	101.2
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/21/79	19	189.	171.	322.	48.	4678.333	68.398	52.	153.	204.	219.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	19	11.	21.526	106.	2.	799.041	28.267	3.	4.	32.	84.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	19	8.	8.	20.	2.	33.889	5.821	2.	3.	10.	18.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	19	3.	13.526	92.	0.	599.708	24.489	0.	0.	14.	66.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	19	7.5	6.976	16.	0.05	28.317	5.321	0.1	2.399	11.5	15.
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	19	0.07	0.251	0.9	0.005	0.1	0.316	0.005	0.01	0.41	0.9
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	18	0.99	2.211	6.899	0.09	5.722	2.392	0.099	0.283	4.4	6.09
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	19	8.6	10.078	22.	0.4	47.717	6.908	1.	4.799	16.	20.
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	17	34.	30.235	50.	5.	128.191	11.322	8.2	28.	37.	40.4
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	19 ##	50.	1468.421	8000.	50.	6729780.702	2594.182	50.	50.	2400.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	19 ##	1.699	2.304	3.903	1.699	0.768	0.876	1.699	1.699	3.38	3.778
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	201.557								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	11/27/72-06/21/79	19	5.2	5.4	10.	0.1	8.206	2.865	0.2	4.	7.1	9.4
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	19	5.199	4.829	9.	0.05	5.645	2.376	0.1	4.	6.5	8.

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	25	12.2	11.74	21.	0.1	33.027	5.747	1.82	9.45	16.7	19.4
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	25	9.6	9.736	14.	7.	2.342	1.53	7.66	8.7	10.5	12.
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	25	7.	7.1	7.6	6.5	0.082	0.286	6.76	7.	7.45	7.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	25	7.	7.015	7.6	6.5	0.089	0.299	6.76	7.	7.45	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	25	0.1	0.097	0.316	0.025	0.004	0.063	0.032	0.036	0.1	0.175
00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/21/79	20	227.5	235.05	474.	128.	5949.945	77.136	167.2	177.25	269.5	325.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/21/79	20	65.	66.25	114.	28.	430.303	20.744	45.1	49.25	75.75	100.6
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/21/79	20	140.5	151.05	399.	11.	6712.471	81.93	33.4	112.25	195.75	217.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	21	22.	30.571	126.	0.5	1120.932	33.48	1.2	6.5	37.	93.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	21	10.	11.143	22.	0.5	60.304	7.766	0.8	3.5	20.	21.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	21	4.	19.476	104.	0.	847.137	29.106	0.5	2.	26.	73.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	24	7.25	7.906	17.	0.05	28.814	5.368	0.7	3.474	13.	15.
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	23	0.04	0.27	3.5	0.005	0.538	0.733	0.005	0.025	0.25	0.704
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	20	0.54	1.112	8.	0.05	3.153	1.776	0.105	0.285	1.294	3.002
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	24	8.099	9.899	22.	0.3	38.762	6.226	2.399	4.224	15.725	18.7
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	23	25.	30.826	160.	8.	876.332	29.603	11.4	20.	34.	40.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	23 ##	50.	162.174	1200.	30.	79135.968	281.311	50.	50.	50.	560.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	23 ##	1.699	1.883	3.079	1.477	0.197	0.444	1.699	1.699	1.699	2.746
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	76.421								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/21/79	24	2.8	3.644	10.	0.05	6.904	2.628	0.4	1.925	5.175	8.4
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	24	2.299	2.84	8.	0.005	5.347	2.312	0.01	1.199	4.5	6.65

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	20	18.15	17.86	30.	2.1	35.558	5.963	9.31	15.125	21.075	26.25
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	21	8.4	8.448	10.	7.	0.761	0.872	7.12	7.8	9.	9.96
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	21	7.3	7.238	7.6	6.4	0.104	0.323	6.8	7.	7.5	7.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	21	7.3	7.099	7.6	6.4	0.125	0.353	6.8	7.	7.5	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	21	0.05	0.08	0.398	0.025	0.007	0.085	0.032	0.032	0.1	0.158
00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/21/79	20	249.	252.7	549.	166.	7528.853	86.769	172.2	183.75	278.5	357.7
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/21/79	20	78.	77.35	187.	12.	1293.713	35.968	33.9	57.	85.75	114.1
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/21/79	20	163.5	175.35	470.	86.	6832.976	82.662	94.1	122.5	196.5	261.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/21/79	21	12.	22.	120.	4.	662.1	25.731	4.4	7.5	29.	46.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/21/79	21	8.	11.429	40.	2.	78.857	8.88	2.2	6.	15.	22.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/21/79	21	4.	10.619	80.	0.5	309.423	17.59	0.6	1.	13.	24.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/21/79	21	12.5	10.771	19.5	0.2	30.097	5.486	1.699	6.5	15.5	17.6
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/21/79	21	0.04	0.191	1.5	0.005	0.183	0.427	0.005	0.01	0.09	1.2
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	14	0.17	0.746	2.799	0.06	0.983	0.991	0.065	0.08	1.317	2.694
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/21/79	21	14.79	13.53	23.19	0.8	34.262	5.853	4.439	8.75	17.8	20.918
00940	CHLORIDE, TOTAL IN WATER MG/L	11/27/72-06/21/79	21	27.	29.876	96.	0.4	315.342	17.758	12.2	25.	31.5	45.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	21 ##	50.	71.429	300.	50.	3892.857	62.393	50.	50.	50.	180
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	21 ##	1.699	1.779	2.477	1.699	0.046	0.215	1.699	1.699	1.699	2.241
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	60.121								
70505	PHOSPHATE,TOTAL,COLORIMETRIC MÉTHOD (MG/L AS P)	11/27/72-06/21/79	21	5.	5.221	9.4	0.05	5.632	2.373	2.38	3.5	7.65	8.32
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/21/79	21	4.199	4.464	8.	0.05	3.546	1.883	2.3	3.2	5.95	6.999

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0067

NPS Station ID: RICH0067  
 Location: FALLING CREEK EXIT OFF I-95  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206047  
 RF3 Index: 02080206138400.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: GRINDALL CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.444448/ -77.436948

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-GRK000.57 /VA2-07-X0088/VA2-4X0088  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.700  
 RF3 Mile Point: 0.07

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.06

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0067

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	180	17.1	16.878	35.	0.	63.771	7.986	6.14	10.125	23.875	26.45
00062 ELEVATION, RESERVOIR SURFACE WATER IN FEET	10/09/80-10/09/80	1##	0.025	0.025	0.025	0.	0.	0.	**	**	**	**
00070 TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-06/20/90	17	8.6	19.012	160.	3.8	1376.105	37.096	4.28	4.8	12.55	59.2
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	106	194.5	221.623	1277.	60.	20576.466	143.445	128.8	160.75	243.25	309.4
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	8	189.	217.5	436.	145.	8380.857	91.547	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	179	9.4	9.734	16.4	6.	3.489	1.868	7.8	8.4	10.9	12.4
00310 BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	114	2.	2.856	16.	0.05	8.864	2.977	1.	1.	3.	6.
00340 COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	114	19.5	21.272	125.	2.	187.704	13.701	11.	13.	24.	35.5
00400 PH (STANDARD UNITS)	03/30/73-06/20/90	178	7.385	7.361	9.5	5.7	0.322	0.568	6.7	7.	7.7	8.
00400 CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	178	7.385	7.013	9.5	5.7	0.444	0.666	6.7	7.	7.7	8.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	178	0.041	0.097	1.995	0.	0.036	0.19	0.01	0.02	0.1	0.2
00403 PH, LAB, STANDARD UNITS SU	11/29/83-06/20/90	18	6.95	6.944	7.4	6.4	0.106	0.326	6.49	6.675	7.225	7.4
00403 CONVERTED PH, LAB, STANDARD UNITS	11/29/83-06/20/90	18	6.947	6.831	7.4	6.4	0.12	0.346	6.49	6.675	7.225	7.4
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/29/83-06/20/90	18	0.113	0.148	0.398	0.04	0.012	0.11	0.04	0.06	0.212	0.324
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	11/29/83-06/20/90	19	25.	25.158	41.	8.	74.14	8.61	15.	18.	31.	39.
00500 RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	77	140.	157.766	574.	13.	6467.076	80.418	97.4	117.5	167.5	251.2
00505 RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	76	46.	47.289	134.	1.	583.968	24.165	19.8	32.25	61.	78.3
00510 RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	76	90.	110.842	490.	10.	5009.521	70.778	61.4	76.25	115.75	187.
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	174	7.	18.385	270.	0.	1325.909	36.413	2.	2.5	13.25	43.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	173	3.	5.61	104.	0.	93.72	9.681	0.5	2.	6.	12.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	174	3.	13.31	220.	0.	904.157	30.069	0.5	2.	9.	32.
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	173 ##	0.05	0.206	3.699	0.01	0.224	0.473	0.05	0.05	0.2	0.36
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	174	0.01	0.028	1.1	0.005	0.007	0.087	0.005	0.005	0.03	0.05
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	160	0.465	0.519	4.879	0.005	0.238	0.488	0.05	0.173	0.75	0.969
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	171	0.5	0.862	40.	0.1	9.358	3.059	0.2	0.3	0.7	1.2
00630 NITRITE PLUS NITRATE, TOTAL 1 DET, (MG/L AS N)	06/23/77-06/21/79	12	0.3	0.429	1.1	0.025	0.149	0.386	0.042	0.09	0.768	1.07
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	107	0.1	0.245	3.9	0.05	0.285	0.534	0.05	0.05	0.2	0.4
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	108	0.05	0.119	1.55	0.005	0.047	0.216	0.02	0.03	0.11	0.211
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	108	7.1	11.103	200.	0.5	377.969	19.441	5.	6.	10.	18.
00900 HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-06/20/90	41	46.	44.951	68.	21.	123.248	11.102	27.2	39.	52.	59.2
00940 CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	79	21.	27.81	210.	2.	766.899	27.693	14.	17.	28.	41.
00945 SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	16	11.	11.188	16	8.	6.029	2.455	8.	9.	13.	15.3
00951 FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	17	0.14	0.125	0.2	0.05	0.002	0.048	0.05	0.075	0.16	0.176

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00955	SILICA, DISSOLVED (MG/L AS SI02)	04/19/89-06/20/90	13	9.5	10.215	14.2	7.4	4.3	2.074	7.56	8.9	11.5	14.04
01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-03/28/85	5 ##	1.	6.8	31.	0.5	183.075	13.531	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	3	3.2	3.253	4.7	1.86	2.019	1.421	**	**	**	**
01027	CADMUM, TOTAL (UG/L AS CD)	08/04/73-03/28/85	6 ##	2.75	2.75	5.	0.5	6.075	2.465	**	**	**	**
01028	CADMUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	3 ##	0.055	0.062	0.08	0.05	0.	0.016	**	**	**	**
01029	CHROMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	3	7.9	7.317	8.19	5.86	1.612	1.27	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-03/28/85	9 ##	5.	6.167	20.	0.5	29.125	5.397	0.5	5.	5.	20.
01042	COPPER, TOTAL (UG/L AS CU)	05/29/73-03/28/85	9 ##	5.	8.333	20.	5.	43.75	6.614	5.	5.	12.5	20.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	3	4.52	4.473	4.9	4.	0.204	0.452	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/04/73-03/28/85	8	19.	23.375	62.	1.	474.839	21.791	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	3	2.1	8.067	20.5	1.6	116.003	10.77	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	6 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	3	1.6	8.133	22.	0.8	144.373	12.016	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/29/73-03/28/85	9	50.	45.	80.	5.	450.	21.213	5.	30.	55.	80.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	3	44.2	39.133	45.2	28.	93.213	9.655	**	**	**	**
05053	INVALID PARAMETER	08/15/79-08/15/79	1	1.	1.	1.	1.	0.	**	**	**	**	**
05109	INVALID PARAMETER	08/15/79-08/15/79	1	8.	8.	8.	8.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	174	400.	1265.54	8000.	50.	4226325.984	2055.803	50.	100.	1125.	4300.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	174	2.602	2.615	3.903	1.699	0.454	0.674	1.699	2.	3.051	3.632
	GEOMETRIC MEAN =				411.714								
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39305	O,P'DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310	P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39315	O,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXAACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.1	0.	0.	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0067

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39740 2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760 SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50060 CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-08/03/74	2	0.	0.	0.	0.	0.	0.	**	**	**	**
70505 PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	63	0.1	0.265	5.2	0.05	0.608	0.779	0.05	0.05	0.1	0.3
70507 PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	62	0.05	0.13	4.	0.005	0.272	0.522	0.005	0.018	0.053	0.1
71900 MERCURY, TOTAL (UG/L AS HG)	05/29/73-03/28/85	9 ##	0.25	0.267	0.5	0.15	0.009	0.094	0.15	0.25	0.25	0.5
71921 MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	3 ##	0.025	0.045	0.1	0.01	0.002	0.048	**	**	**	**
77825 ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0067

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	17	1	0.06	3	0	0.00	6	1	0.17	8	0	0.00			
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	179	0	0.00	50	0	0.00	69	0	0.00	60	0	0.00			
00400 PH	Fresh Chronic	9.	178	2	0.01	50	1	0.02	70	0	0.00	58	1	0.02			
00403 PH, LAB	Other-Lo Lim.	6.5	178	12	0.07	50	0	0.00	70	8	0.11	58	4	0.07			
00615 NITRITE NITROGEN, TOTAL AS N	Fresh Chronic	9.	18	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Other-Lo Lim.	6.5	18	3	0.17	3	0	0.00	8	2	0.25	7	1	0.14			
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	1.	174	1	0.01	47	0	0.00	71	1	0.01	56	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Drinking Water	10.	160	0	0.00	45	0	0.00	66	0	0.00	49	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	10.	12	0	0.00	1	0	0.00	4	0	0.00	7	0	0.00			
00951 FLUORIDE, TOTAL AS F	Drinking Water	860.	79	0	0.00	19	0	0.00	31	0	0.00	29	0	0.00			
01002 ARSENIC, TOTAL	Drinking Water	250.	79	0	0.00	19	0	0.00	31	0	0.00	29	0	0.00			
01027 CADMIUM, TOTAL	Drinking Water	250.	16	0	0.00	1	0	0.00	7	0	0.00	8	0	0.00			
01034 CHROMIUM, TOTAL	Fresh Acute	4.	17	0	0.00	2	0	0.00	7	0	0.00	8	0	0.00			
01042 COPPER, TOTAL	Drinking Water	50.	5	0	0.00	1	0	0.00				4	0	0.00			
01051 LEAD, TOTAL	Fresh Acute	3.9	3 &	0	0.00	1	0	0.00				2	0	0.00			
01065 NICKEL, DISSOLVED	Drinking Water	5.	3 &	0	0.00	1	0	0.00				2	0	0.00			
01067 NICKEL, TOTAL	Drinking Water	100.	9	0	0.00	1	0	0.00	2	0	0.00	6	0	0.00			
01092 ZINC, TOTAL	Fresh Acute	82.	8	0	0.00	1	0	0.00	2	0	0.00	5	0	0.00			
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Drinking Water	15.	8	5	0.63	1	1	1.00	2	1	0.50	5	3	0.60			
34356 ENDOSULFAN, BETA, TOTAL	Fresh Acute	1400.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00			
34361 ENDOSULFAN, ALPHA, TOTAL	Drinking Water	100.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00			
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	120.	9	0	0.00	1	0	0.00	2	0	0.00	6	0	0.00			
39300 P,P' DDT IN WHOLE WATER SAMPLE	Drinking Water	5000.	9	0	0.00	1	0	0.00	2	0	0.00	6	0	0.00			
39310 P,P'DDD IN WHOLE WATER SAMPLE	Fresh Acute	200.	174	118	0.68	46	32	0.70	71	45	0.63	57	41	0.72			
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	0.22	1	0	0.00							1	0	0.00			
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.22	1	0	0.00							1	0	0.00			
39340 GAMMA-BHC(LINDANE), WHOLE WATER	Drinking Water	20.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	1.1	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.6	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
39390 ENDRIN IN WHOLE WATER SAMPLE	Drinking Water	1050.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00			
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	3.	4	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00			
	Drinking Water	0.73	1	0	0.00							1	0	0.00			
	Fresh Acute	3.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0067

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
	Drinking Water	0.4	1	0	0.00							1	0	0.00			
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
	Drinking Water	0.2	1	0	0.00							1	0	0.00			
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00						
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	1	0	0.00							1	0	0.00			
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	70.	1	0	0.00							1	0	0.00			
39730 2,4-D IN WHOLE WATER SAMPLE	Drinking Water	50.	1	0	0.00							1	0	0.00			
39760 SILVEX IN WHOLE WATER SAMPLE																	
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	2	0	0.00	2	0	0.00									
71900 MERCURY, TOTAL	Fresh Acute	2.4	9	0	0.00	1	0	0.00	2	0	0.00	6	0	0.00			
	Drinking Water	2.	9	0	0.00	1	0	0.00	2	0	0.00	6	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1973 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	9	21.1	18.622	25.6	2.2	53.484	7.313	2.2	15.25	23.85	25.6
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	10	8.8	9.02	13.4	6.2	3.444	1.856	6.38	8.	9.45	13.08
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	9	7.	7.067	7.5	6.5	0.13	0.361	6.5	6.75	7.45	7.5
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	9	7.	6.937	7.5	6.5	0.149	0.386	6.5	6.75	7.45	7.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	9	0.1	0.116	0.316	0.032	0.009	0.095	0.032	0.036	0.179	0.316
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	9	131.	122.778	201.	13.	3360.944	57.974	13.	78.	168.	201.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	9	25.	35.667	134.	3.	1672.25	40.893	3.	7.5	47.	134.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	9	84.	86.667	169.	10.	1919.25	43.809	10.	63.5	114.	169.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	6.	9.	28.	1.	68.5	8.276	1.	4.	12.5	28.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	2.	3.	8.	0.	9.75	3.122	0.	0.5	6.	8.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	5.	6.	20.	0.	36.75	6.062	0.	2.	8.5	20.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.3	0.645	3.699	0.05	1.217	1.103	0.05	0.05	0.7	3.399
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.01	0.031	0.14	0.005	0.002	0.042	0.005	0.005	0.05	0.131
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.7	1.066	4.879	0.25	1.878	1.371	0.254	0.365	0.965	4.507
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	10	1.05	1.	1.5	0.4	0.124	0.352	0.42	0.675	1.249	1.49
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	9	18.	25.111	84.	12.	505.361	22.48	12.	14.	23.5	84.
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	10	200.	740.	3000.	50.	1135444.444	1065.572	50.	87.5	1400.	2930.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	10	2.301	2.436	3.477	1.699	0.424	0.651	1.699	1.925	3.121	3.466
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	272.732								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	10 ##	0.075	0.745	5.2	0.05	2.591	1.61	0.05	0.05	0.75	4.8
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	10	0.1	0.58	4.	0.05	1.569	1.253	0.05	0.05	0.375	3.72

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	11	14.4	15.918	26.7	8.3	56.162	7.494	8.42	8.9	25.6	26.48
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	11	9.9	9.818	12.4	7.6	2.558	1.599	7.68	8.4	11.	12.2
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.5	7.427	9.	6.5	0.416	0.645	6.6	7.	7.7	8.76
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.5	7.132	9.	6.5	0.512	0.715	6.6	7.	7.7	8.76
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	11	0.032	0.074	0.316	0.001	0.008	0.088	0.004	0.02	0.1	0.273
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	11	126.	153.727	301.	90.	5074.218	71.234	93.2	111.	152.	298.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	11	46.	47.091	78.	1.	427.291	20.671	7.4	36.	61.	76.8
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	11	89.	106.909	240.	44.	3975.291	63.05	46.8	59.	119.	233.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	12.	27.	136.	0.	1742.4	41.742	0.2	1.	27.	123.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	6.	16.909	104.	0.	902.291	30.038	0.2	1.	22.	87.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	3.	10.091	52.	0.	278.691	16.694	0.	0.	9.	48.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.2	0.177	0.3	0.05	0.01	0.101	0.05	0.05	0.3	0.3
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.01	0.022	0.09	0.005	0.001	0.027	0.005	0.005	0.03	0.082
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.6	0.644	1.089	0.3	0.059	0.242	0.328	0.46	0.79	1.071
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	11	0.7	0.664	1.	0.3	0.043	0.206	0.32	0.5	0.8	0.98
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	10	17.	19.9	43.	9.	92.767	9.632	9.4	14.5	24.25	41.5
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	11	100.	504.545	2700.	50.	622727.273	789.131	50.	50.	800.	2340.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	11	2.	2.315	3.431	1.699	0.355	0.595	1.699	1.699	2.903	3.336
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	206.529								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	11 ##	0.05	0.109	0.3	0.05	0.007	0.086	0.05	0.05	0.2	0.28
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	11 ##	0.05	0.059	0.1	0.05	0.	0.02	0.05	0.05	0.05	0.1

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	12	18.6	16.8	24.4	6.1	35.296	5.941	7.27	10.7	21.925	23.92
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	12	8.7	9.2	12.9	7.2	2.973	1.724	7.26	7.85	10.6	12.33
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	12	7.	7.117	7.5	6.5	0.1	0.316	6.62	7.	7.5	7.5
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	12	7.	7.012	7.5	6.5	0.112	0.334	6.62	7.	7.5	7.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	12	0.1	0.097	0.316	0.032	0.006	0.077	0.032	0.032	0.1	0.259
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	9	154.	169.	250.	111.	1766.25	42.027	111.	142.5	202.	250.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	9	66.	65.111	96.	38.	367.861	19.18	38.	49.5	81.	96.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	9	87.	103.889	178.	45.	2335.611	48.328	45.	65.5	158.5	178.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	24.	26.444	72.	6.	501.778	22.4	6.	8.	43.	72.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	8.	9.556	22.	2.	37.778	6.146	2.	5.	13.	22.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	10.	16.889	50.	0.	285.111	16.885	0.	4.	31.	50.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.2	0.39	1.399	0.05	0.171	0.414	0.05	0.163	0.625	1.329
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.02	0.022	0.05	0.005	0.	0.014	0.005	0.005	0.03	0.048
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.33	0.419	1.099	0.07	0.111	0.333	0.071	0.118	0.698	1.064
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	10	0.9	5.07	40.	0.5	151.211	12.297	0.51	0.675	2.174	36.3
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	11	18.	26.455	120.	8.	980.873	31.319	9.2	16.	19.	101.2
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	11	500.	1000.	6000.	50.	3001500.	1732.484	50.	100.	900.	5140.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	11	2.699	2.549	3.778	1.699	0.445	0.667	1.699	2.	2.954	3.669
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	354.221								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	10 ##	0.05	0.07	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	9 ##	0.04	0.032	0.05	0.005	0.	0.02	0.005	0.008	0.05	0.05

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	8	21.4	21.113	35.	3.9	87.35	9.346	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	8	9.05	8.8	10.	7.	1.289	1.135	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	7	8.	7.914	8.7	7.3	0.305	0.552	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	7	8.	7.668	8.7	7.3	0.376	0.613	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	7	0.01	0.022	0.05	0.002	0.	0.021	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	8	171.5	202.75	456.	121.	11399.357	106.768	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	8	66.	67.625	104.	46.	325.411	18.039	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	8	103.5	135.125	352.	69.	8358.411	91.424	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	8	12.	44.313	270.	0.5	8431.924	91.826	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	8	5.	11.313	50.	0.	279.496	16.718	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	8	6.	33.063	220.	0.5	5737.031	75.743	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	8	0.1	0.281	1.299	0.05	0.183	0.428	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	8	0.02	0.024	0.07	0.005	0.	0.021	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	8	0.27	0.38	1.	0.18	0.085	0.291	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	8	0.4	0.413	0.5	0.3	0.007	0.083	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	8	19.5	19.75	28.	12.	24.786	4.979	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	7	100.	221.429	500.	50.	38214.286	195.485	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	7	2.	2.2	2.699	1.699	0.147	0.383	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	158.382								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	8	0.1	0.125	0.3	0.05	0.007	0.085	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	8	0.05	0.056	0.16	0.005	0.002	0.046	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	10	14.	13.18	28.	1.	105.531	10.273	1.01	1.175	21.625	27.55
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	10	9.95	10.36	13.5	8.4	2.485	1.576	8.46	9.15	11.4	13.35
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	10	7.6	7.64	8.3	7.	0.194	0.44	7.	7.3	8.	8.27
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	10	7.589	7.446	8.3	7.	0.236	0.485	7.	7.3	8.	8.27
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	10	0.026	0.036	0.1	0.005	0.001	0.036	0.006	0.01	0.055	0.1
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	9	163.	207.889	574.	129.	19308.861	138.956	129.	146.	190.5	574.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	9	61.	61.444	85.	36.	289.278	17.008	36.	47.	77.	85.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	9	111.	146.444	490.	76.	17233.278	131.276	76.	80.	138.	490.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	5.	19.889	121.	1.	1475.611	38.414	1.	3.	16.	121.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	3.	5.222	19.	0.	34.694	5.89	0.	1.5	8.	19.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	2.	14.667	102.	0.	1111.25	33.335	0.	0.5	11.5	102.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	10 ##	0.05	0.094	0.3	0.04	0.008	0.087	0.041	0.05	0.125	0.29
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.015	0.028	0.12	0.005	0.001	0.035	0.005	0.005	0.04	0.112
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	5	0.67	0.481	0.86	0.025	0.131	0.362	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	10	0.3	0.62	2.5	0.1	0.504	0.71	0.11	0.2	0.8	2.33
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	10	26.	42.9	210.	2.	3588.767	59.906	3.3	16.5	40.75	193.3
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	10	995.	6000.	50.	3451916.667	1857.933	50.	50.	1025.	5600.	
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	10	2.239	2.428	3.778	1.699	0.538	0.734	1.699	1.699	2.959	3.73
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90		GEOMETRIC MEAN =	267.699								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	10	0.1	0.41	3.4	0.05	1.104	1.051	0.05	0.05	0.1	3.07
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	10 ##	0.013	0.025	0.11	0.005	0.001	0.033	0.005	0.005	0.028	0.104

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### Annual Analysis for 1978 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	9	16.	17.744	29.	0.7	72.15	8.494	0.7	13.75	24.75	29.
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	9	8.6	9.6	16.4	7.5	8.08	2.843	7.5	7.75	10.6	16.4
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	9	7.5	7.456	8.	7.	0.093	0.305	7.	7.25	7.55	8.
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	9	7.5	7.36	8.	7.	0.103	0.321	7.	7.25	7.55	8.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	9	0.032	0.044	0.1	0.01	0.001	0.033	0.01	0.028	0.066	0.1
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	9	120.	141.111	270.	98.	2900.111	53.853	98.	107.	163.5	270.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	9	34.	37.333	47.	26.	69.25	8.322	30.	46.	47.	
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	9	87.	103.778	223.	68.	2351.194	48.489	68.	74.5	118.5	223.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	8.	26.611	162.	0.5	2643.486	51.415	0.5	3.	22.	162.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	4.	4.389	18.	0.	28.986	5.384	0.	1.25	4.5	18.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	9	4.	22.278	144.	0.5	2141.694	46.278	0.5	2.	19.	144.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.1	0.117	0.4	0.05	0.012	0.109	0.05	0.05	0.1	0.4
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.02	0.019	0.04	0.005	0.	0.012	0.005	0.01	0.03	0.04
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	4	0.12	0.206	0.56	0.025	0.059	0.242	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	9	0.5	0.544	1.1	0.1	0.088	0.296	0.1	0.35	0.75	1.1
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	9	22.	20.667	27.	13.	18.5	4.301	13.	17.	23.5	27.
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	9	100.	1877.778	8000.	50.	12053819.444	3471.861	50.	75.	4150.	8000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	9	2.	2.442	3.903	1.699	0.748	0.865	1.699	1.849	3.19	3.903
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90		GEOMETRIC MEAN =	276.997								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	9	0.1	0.217	1.	0.05	0.091	0.301	0.05	0.05	0.2	1.
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	9	0.05	0.062	0.2	0.005	0.003	0.058	0.005	0.02	0.08	0.2

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### Annual Analysis for 1979 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	10	14.5	15.25	25.5	4.	49.903	7.064	4.1	11.	20.875	25.15
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	5	138.	358.2	1277.	91.	264472.7	514.269	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	10	9.1	9.91	12.4	8.	2.468	1.571	8.09	8.975	11.825	12.38
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	5	1.	4.2	16.	1.	43.7	6.611	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	5	22.	31.	63.	20.	332.5	18.235	**	**	**	**
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	10	7.3	7.25	8.	6.5	0.214	0.462	6.52	6.775	7.55	7.97
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	10	7.3	7.033	8.	6.5	0.266	0.516	6.52	6.775	7.55	7.97
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	10	0.05	0.093	0.316	0.01	0.01	0.1	0.011	0.029	0.169	0.305
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	8	109.	112.5	145.	94.	305.143	17.468	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	7	33.	35.714	67.	23.	217.238	14.739	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	7	77.	74.429	108.	27.	602.286	24.542	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	10	6.	23.3	178.	1.	2971.567	54.512	1.1	2.75	13.	161.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	10	2.5	5.5	28.	0.	68.5	8.276	0.1	1.	6.5	26.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	10	3.5	17.85	150.	0.	2163.114	46.509	0.	0.375	6.25	135.7
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.01	0.12	1.1	0.005	0.119	0.344	0.005	0.005	0.023	0.993
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	8	0.445	0.478	0.8	0.005	0.069	0.262	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	10	0.4	0.42	0.5	0.2	0.008	0.092	0.22	0.4	0.5	0.5
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5 ##	0.05	0.06	0.1	0.05	0.001	0.022	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.03	0.032	0.05	0.02	0.	0.011	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	5	12.	16.4	33.	10.	89.3	9.45	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	5	18.	19.8	25.	16.	19.2	4.382	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	9	800.	1216.667	3700.	50.	1531250.	1237.437	50.	300.	2000.	3700.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	9	2.903	2.809	3.568	1.699	0.377	0.614	1.699	2.349	3.263	3.568
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	644.344								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	5 ##	0.05	0.06	0.1	0.05	0.001	0.022	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	5	0.01	0.009	0.01	0.005	0.	0.002	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	12	17.25	16.917	31.	4.5	82.083	9.06	5.25	7.5	22.875	30.7
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	186.	194.545	318.	112.	4149.673	64.418	114.8	136.	231.	312.2
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	12	9.35	9.325	12.7	6.2	4.217	2.053	6.44	7.425	10.875	12.43
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	11	2.	4.	16.	1.	18.	4.243	1.2	2.	5.	14.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	17.	29.909	125.	12.	1062.691	32.599	12.2	13.	32.	107.
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	12	7.15	7.275	8.4	6.	0.449	0.67	6.21	6.85	7.875	8.31
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	12	7.147	6.827	8.4	6.	0.668	0.817	6.21	6.85	7.875	8.31
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	12	0.071	0.149	1.	0.004	0.076	0.275	0.005	0.015	0.144	0.76
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	13.	20.864	88.	2.5	581.105	24.106	3.2	8.	26.	77.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	6.	5.045	9.	0.	7.723	2.779	0.4	2.5	7.	8.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	9.	16.045	80.	0.	522.423	22.857	0.2	2.5	17.	69.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	11 ##	0.05	0.064	0.1	0.05	0.001	0.023	0.05	0.05	0.1	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.01	0.014	0.03	0.005	0.	0.009	0.005	0.005	0.02	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.465	0.461	1.1	0.025	0.109	0.331	0.025	0.179	0.65	1.07
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	11	0.3	0.382	0.8	0.2	0.048	0.218	0.2	0.2	0.5	0.78
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11 ##	0.05	0.091	0.3	0.05	0.007	0.083	0.05	0.05	0.1	0.28
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.04	0.046	0.13	0.02	0.001	0.032	0.02	0.02	0.05	0.118
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	12.	16.727	49.	8.	139.418	11.808	8.2	10.	20.	44.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	200.	1763.636	8000.	50.	8796045.455	2965.813	50.	100.	3200.	7780.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	2.301	2.548	3.903	1.699	0.683	0.826	1.699	2.	3.505	3.89
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	352.979								

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### Annual Analysis for 1981 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	11	16.5	17.318	30.	2.	82.864	9.103	2.8	10.5	24.5	29.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	197.	208.364	336.	126.	3106.655	55.737	129.2	184.	232.	317.6
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	11	8.3	9.127	13.	6.7	3.8	1.949	6.92	8.1	9.5	12.9
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	11	2.	3.636	13.	1.	17.855	4.225	1.	1.	3.	12.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	20.	24.364	47.	13.	104.055	10.201	13.4	18.	33.	44.4
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.4	7.445	8.2	6.9	0.171	0.413	6.92	7.	7.8	8.14
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.4	7.293	8.2	6.9	0.196	0.443	6.92	7.	7.8	8.14
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	11	0.04	0.051	0.126	0.006	0.002	0.04	0.008	0.016	0.1	0.121
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	6.	16.773	69.	2.5	518.518	22.771	2.5	2.5	16.	66.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	2.5	4.227	12.	0.	16.118	4.015	0.2	2.	7.	11.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	6.	13.227	58.	1.	353.018	18.789	1.3	2.5	10.	54.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	11##	0.05	0.091	0.3	0.05	0.007	0.083	0.05	0.05	0.1	0.28
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11##	0.005	0.013	0.04	0.005	0.	0.014	0.005	0.005	0.02	0.04
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.13	0.253	1.	0.025	0.082	0.286	0.025	0.09	0.41	0.89
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	11	0.3	0.409	1.	0.2	0.053	0.23	0.2	0.3	0.5	0.92
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.095	0.2	0.05	0.002	0.042	0.05	0.05	0.1	0.18
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.06	0.061	0.13	0.02	0.001	0.034	0.022	0.03	0.08	0.126
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	13.	13.727	24.	5.	44.218	6.65	5.2	7.	19.	23.8
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	800.	909.091	2800.	50.	728409.091	853.469	50.	100.	1500.	2580.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	2.903	2.667	3.447	1.699	0.398	0.631	1.699	2.	3.176	3.404
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	465.026								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	11	16.5	16.5	32.5	0.	79.55	8.919	1.3	11.	23.5	31.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	195.	230.455	461.	130.	8424.673	91.786	136.2	170.	278.	429.
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	10	8.75	8.76	12.2	6.	3.854	1.963	6.08	6.8	10.425	12.06
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	11	2.	2.277	5.	0.05	1.596	1.263	0.24	2.	3.	4.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	20.	18.727	27.	10.	32.818	5.729	10.2	12.	23.	26.6
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.	7.136	7.5	6.7	0.111	0.332	6.7	6.8	7.5	7.5
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.	7.027	7.5	6.7	0.124	0.352	6.7	6.8	7.5	7.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	11	0.1	0.094	0.2	0.032	0.004	0.066	0.032	0.032	0.158	0.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	5.	5.318	10.	2.5	9.814	3.133	2.5	2.5	8.	10.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	3.	3.682	6.	2.5	2.014	1.419	2.5	2.5	5.	6.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	2.5	2.773	6.	0.	2.268	1.506	0.4	2.	4.	5.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	10##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11##	0.005	0.007	0.01	0.005	0.	0.003	0.005	0.005	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.39	0.372	0.9	0.25	0.096	0.309	0.036	0.08	0.64	0.858
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	11	0.4	0.35	0.5	0.2	0.012	0.107	0.2	0.25	0.4	0.5
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10##	0.075	0.095	0.2	0.05	0.004	0.06	0.05	0.05	0.125	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.05	0.042	0.07	0.02	0.	0.019	0.02	0.02	0.05	0.07
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	6.	23.545	200.	1.	3428.673	58.555	1.8	5.	8.	161.6
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	10	650.	1270.	6800.	100.	4115666.667	2028.711	110.	200.	1275.	6330.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	10	2.812	2.77	3.833	2.	0.291	0.539	2.03	2.301	3.081	3.781
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	589.15								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	10	11.75	14.7	31.	0.5	93.956	9.693	1.15	8.5	23.	30.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	182.	193.8	307.	109.	4145.289	64.384	112.8	156.	227.	306.8
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	10	10.75	10.78	14.	8.	4.18	2.044	8.02	8.5	12.5	13.88
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	9	2.	2.	5.	1.	1.75	1.323	1.	1.	2.5	5.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	10	14.	17.6	42.	10.	96.711	9.834	10.1	11.	21.75	40.2
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	9	7.	6.967	8.	5.7	0.42	0.648	5.7	6.6	7.4	8.
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	9	7.	6.491	8.	5.7	0.674	0.821	5.7	6.6	7.4	8.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	9	0.1	0.323	1.995	0.01	0.402	0.634	0.01	0.041	0.258	1.995
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	10	9.	8.9	21.	2.5	42.878	6.548	2.5	2.5	14.25	20.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	10	2.5	3.9	11.	2.	8.433	2.904	2.	2.375	4.75	10.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	10	3.	6.	19.	2.5	28.111	5.302	2.5	2.5	8.25	18.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	10##	0.05	0.065	0.15	0.05	0.001	0.034	0.05	0.05	0.063	0.145
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10##	0.008	0.01	0.02	0.005	0.	0.006	0.005	0.005	0.013	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.685	0.594	1.	0.025	0.12	0.347	0.035	0.225	0.843	1.
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	10	0.4	0.44	0.9	0.2	0.047	0.217	0.2	0.275	0.6	0.87
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10##	0.05	0.09	0.3	0.05	0.006	0.077	0.05	0.05	0.1	0.28
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.02	0.032	0.1	0.01	0.001	0.026	0.011	0.02	0.035	0.095
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	8.	8.	18.	2.	19.111	4.372	2.3	5.	10.	17.2
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	10	200.	735.	2100.	50.	705583.333	839.99	55.	100.	1700.	2090.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	10	2.301	2.533	3.322	1.699	0.358	0.599	1.729	2.	3.228	3.32
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	341.391								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	7	22.5	20.786	28.5	11.5	40.238	6.343	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	7	139.	150.857	244.	60.	4186.81	64.706	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	7	9.	9.386	11.	8.1	1.308	1.144	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	7	2.	2.571	7.	1.	4.952	2.225	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	7	13.	18.429	37.	7.	163.286	12.778	**	**	**	**
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	7	6.9	7.164	8.4	6.2	0.709	0.842	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	7	6.9	6.681	8.4	6.2	0.981	0.991	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	7	0.126	0.208	0.631	0.004	0.065	0.254	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	7	7.	35.357	130.	2.5	2913.643	53.978	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	7	4.	5.929	16.	2.5	25.119	5.012	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	7	2.5	30.5	114.	2.	2347.5	48.451	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	7##	0.05	0.093	0.2	0.05	0.005	0.073	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	7##	0.005	0.011	0.04	0.005	0.	0.013	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	7	0.13	0.279	0.79	0.02	0.102	0.319	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	7	0.3	0.386	0.9	0.2	0.071	0.267	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	7	0.1	0.136	0.3	0.05	0.01	0.099	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	7	0.08	0.097	0.21	0.01	0.006	0.078	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	7	6.	9.571	21.	5.	37.952	6.161	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	6	700.	2675.	8000.	50.	12865750.	3586.886	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	6	2.841	2.849	3.903	1.699	0.818	0.905	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	706.918								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	11	17.5	17.109	26.5	3.6	54.209	7.363	4.28	13.	25.	26.3
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	202.	240.091	692.	81.	27698.291	166.428	93.8	151.	251.	627.
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	11	10.1	10.155	14.2	8.	3.437	1.854	8.02	8.6	11.2	13.76
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	11	1.	1.5	4.	0.5	0.95	0.975	0.6	1.	2.	3.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	18.	17.545	25.	11.	22.073	4.698	11.4	13.	21.	24.8
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	11	6.7	7.145	9.5	6.2	0.951	0.975	6.24	6.6	7.3	9.28
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	11	6.7	6.717	9.5	6.2	1.153	1.074	6.24	6.6	7.3	9.28
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	11	0.2	0.192	0.631	0.	0.035	0.188	0.001	0.05	0.251	0.584
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	11 ##	2.5	7.091	26.	2.5	59.141	7.69	2.5	2.5	9.	24.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	11 ##	2.5	3.273	10.	0.	6.268	2.504	0.5	2.5	3.	9.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	11 ##	2.5	5.182	16.	2.5	21.214	4.606	2.5	2.5	6.	15.2
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	9 ##	0.05	0.111	0.6	0.05	0.034	0.183	0.05	0.05	0.05	0.6
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.01	0.023	0.09	0.005	0.001	0.029	0.005	0.008	0.035	0.09
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.54	0.552	0.95	0.05	0.077	0.278	0.05	0.37	0.775	0.95
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	6	0.3	0.317	0.4	0.3	0.002	0.041	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	6 ##	0.075	0.158	0.5	0.05	0.031	0.177	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	9	0.03	0.084	0.4	0.005	0.015	0.123	0.005	0.02	0.1	0.4
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	7.	6.5	9.	0.5	5.85	2.419	1.4	6.	9.	9.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	200.	354.545	1000.	50.	109727.273	331.251	50.	50.	700.	940.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	2.301	2.308	3.	1.699	0.278	0.527	1.699	1.699	2.845	2.969
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	203.285								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	12	14.5	16.917	28.	6.5	58.811	7.669	7.55	10.	24.5	27.1
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	12	223.	266.583	822.	160.	32610.811	180.585	160.	168.5	262.25	663.9
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	12	10.45	9.833	11.4	7.9	1.761	1.327	7.9	8.625	10.975	11.34
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	12	2.	3.75	12.	1.	15.477	3.934	1.	1.	5.5	11.7
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	12	17.5	19.667	42.	2.	117.697	10.849	5.	13.	24.75	40.2
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	12	7.31	7.24	7.95	6.3	0.249	0.499	6.45	6.848	7.68	7.908
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	12	7.307	6.977	7.95	6.3	0.324	0.569	6.45	6.847	7.68	7.908
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	12	0.049	0.105	0.501	0.011	0.019	0.136	0.013	0.021	0.142	0.398
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	12 ##	4.75	12.417	46.	2.5	233.22	15.272	2.5	2.5	21.	43.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	12 ##	2.5	5.083	13.	2.	14.129	3.759	2.15	2.5	8.5	12.1
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	12 ##	2.5	8.583	33.	2.	121.22	11.01	2.15	2.5	11.75	31.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	12 ##	0.05	0.108	0.3	0.05	0.01	0.1	0.05	0.05	0.175	0.3
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	12	0.02	0.02	0.05	0.005	0.	0.014	0.005	0.005	0.03	0.044
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	12	0.335	0.454	1.28	0.25	0.181	0.426	0.033	0.075	0.863	1.187
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	12	0.6	0.792	1.4	0.3	0.179	0.423	0.33	0.425	1.275	1.4
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	12	0.15	0.175	0.4	0.05	0.014	0.12	0.05	0.1	0.2	0.4
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	12	0.07	0.089	0.28	0.01	0.005	0.074	0.013	0.035	0.11	0.244
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	12	7.	8.083	15.	5.	9.174	3.029	5.	6.25	10.25	14.1
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	804.	1891.273	8000.	50.	5951537.818	2439.577	50.	300.	3700.	7180.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	2.905	2.871	3.903	1.699	0.522	0.722	1.699	2.477	3.568	3.841
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	742.991								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	11	16.5	17.236	30.	6.8	62.237	7.889	7.04	11.	24.	29.16
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	243.	230.273	324.	148.	4467.818	66.842	150.2	165.	315.	322.8
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	10	10.3	10.02	11.7	7.6	1.593	1.262	7.7	9.2	10.85	11.69
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	11	2.	2.091	6.	1.	2.491	1.578	1.	1.	2.	5.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	20.	19.909	40.	11.	62.291	7.892	11.2	15.	22.	36.8
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.6	7.536	7.99	6.97	0.104	0.322	7.022	7.27	7.82	7.968
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.6	7.427	7.99	6.97	0.117	0.342	7.022	7.27	7.82	7.968
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	11	0.025	0.037	0.107	0.01	0.001	0.029	0.011	0.015	0.054	0.097
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	6.	10.818	54.	2.5	227.264	15.075	2.5	2.5	13.	46.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	10##	2.5	3.25	6.	0.	3.514	1.875	0.25	2.5	5.25	6.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	6.	8.909	48.	2.	177.391	13.319	2.1	2.5	7.	40.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	11##	0.05	0.132	0.8	0.05	0.05	0.223	0.05	0.05	0.1	0.66
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.02	0.017	0.04	0.005	0.	0.011	0.005	0.005	0.02	0.038
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	11	0.33	0.379	0.87	0.025	0.081	0.285	0.042	0.14	0.63	0.844
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	11	0.5	0.627	2.1	0.4	0.246	0.496	0.4	0.4	0.5	1.82
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.15	0.3	0.05	0.009	0.095	0.05	0.05	0.2	0.3
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.07	0.096	0.2	0.03	0.003	0.054	0.032	0.05	0.14	0.19
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	7	7.	7.571	9.	7.	0.619	0.787	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	1200.	2031.818	7300.	50.	5594136.364	2365.193	120.	700.	2000.	7040.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	3.079	3.035	3.863	1.699	0.338	0.581	1.88	2.845	3.301	3.846
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		1082.914							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	11	17.	16.6	26.5	5.	80.436	8.969	5.22	8.	25.5	26.38
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	8	200.5	202.	257.	169.	808.857	28.44	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	11	9.7	10.345	13.5	8.	4.375	2.092	8.02	8.4	12.5	13.38
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	8	2.	2.125	3.	1.	0.696	0.835	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	8	19.	18.25	29.	7.	53.071	7.285	**	**	**	**
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.63	7.72	8.9	6.84	0.342	0.584	6.942	7.42	7.72	8.854
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.63	7.464	8.9	6.84	0.414	0.643	6.942	7.42	7.72	8.854
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	11	0.023	0.034	0.145	0.001	0.002	0.039	0.001	0.019	0.038	0.125
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	8	6.	15.875	57.	1.	400.696	20.017	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	8	2.	3.125	9.	1.	6.982	2.642	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	8	4.	12.813	48.	0.5	305.853	17.489	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.24	0.978	3.4	0.01	1.658	1.287	0.01	0.125	2.225	3.4
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.04	0.073	0.24	0.005	0.006	0.075	0.005	0.025	0.12	0.24
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.72	0.606	0.96	0.02	0.122	0.35	0.02	0.265	0.935	0.96
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	9	0.6	1.411	4.2	0.3	1.946	1.395	0.3	0.5	2.65	4.2
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	9	0.2	1.144	3.9	0.1	2.23	1.493	0.1	0.1	2.65	3.9
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	6	0.095	0.153	0.53	0.04	0.035	0.187	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	6	5.75	5.35	7.3	2.7	4.299	2.073	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	2	37.	37.	52.	22.	450.	21.213	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	600.	1295.455	8000.	50.	5244227.273	2290.028	60.	200.	1600.	6740.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	11	2.778	2.716	3.903	1.699	0.367	0.606	1.759	2.301	3.204	3.769
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		520.021							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	11	16.3	16.136	25.8	2.1	57.403	7.576	3.52	9.9	24.2	25.62
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	8	204.	196.125	244.	122.	1679.268	40.979	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	11	10.	10.845	15.5	8.1	6.095	2.469	8.16	8.6	13.2	15.1
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	11	2.	2.909	10.	1.	7.091	2.663	1.	1.	3.	9.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	20.	19.727	38.	9.	62.418	7.901	9.6	14.	24.	35.4
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.73	7.631	8.11	7.02	0.162	0.402	7.032	7.17	7.97	8.098
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	11	7.73	7.459	8.11	7.02	0.194	0.441	7.032	7.17	7.97	8.098
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	11	0.019	0.035	0.095	0.008	0.001	0.032	0.008	0.011	0.068	0.093
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	8	138.	174.5	374.	91.	8850.	94.074	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	8	39.	40.	79.	21.	342.286	18.501	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	8	97.	134.5	295.	69.	6540.857	80.876	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	3.	21.864	199.	0.5	3464.805	58.863	0.6	2.	9.	161.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	2.	3.955	27.	0.5	60.023	7.747	0.5	0.5	3.	22.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	11	2.	18.227	172.	0.5	2608.918	51.078	0.5	0.5	5.	139.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	10##	0.02	0.207	0.87	0.02	0.096	0.31	0.02	0.02	0.34	0.85
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	10	0.015	0.026	0.08	0.005	0.001	0.024	0.005	0.009	0.043	0.077
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	9	0.75	0.882	1.43	0.28	0.166	0.408	0.28	0.575	1.325	1.43
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	10	0.55	0.68	1.5	0.3	0.148	0.385	0.3	0.45	0.825	1.47
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	0.25	0.5	1.6	0.1	0.258	0.508	0.1	0.1	0.8	1.55
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.38	0.556	1.55	0.09	0.254	0.504	0.092	0.14	0.965	1.505
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	6.4	6.364	8.1	4.8	1.079	1.039	4.82	5.8	7.4	8.
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	9	33.	38.333	110.	17.	789.	28.089	17.	22.	39.	110.
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	10	400.	1905.	6100.	50.	6790250.	2605.811	55.	175.	5050.	6100.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	10	2.602	2.783	3.785	1.699	0.547	0.739	1.729	2.226	3.7	3.785
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	606.33								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

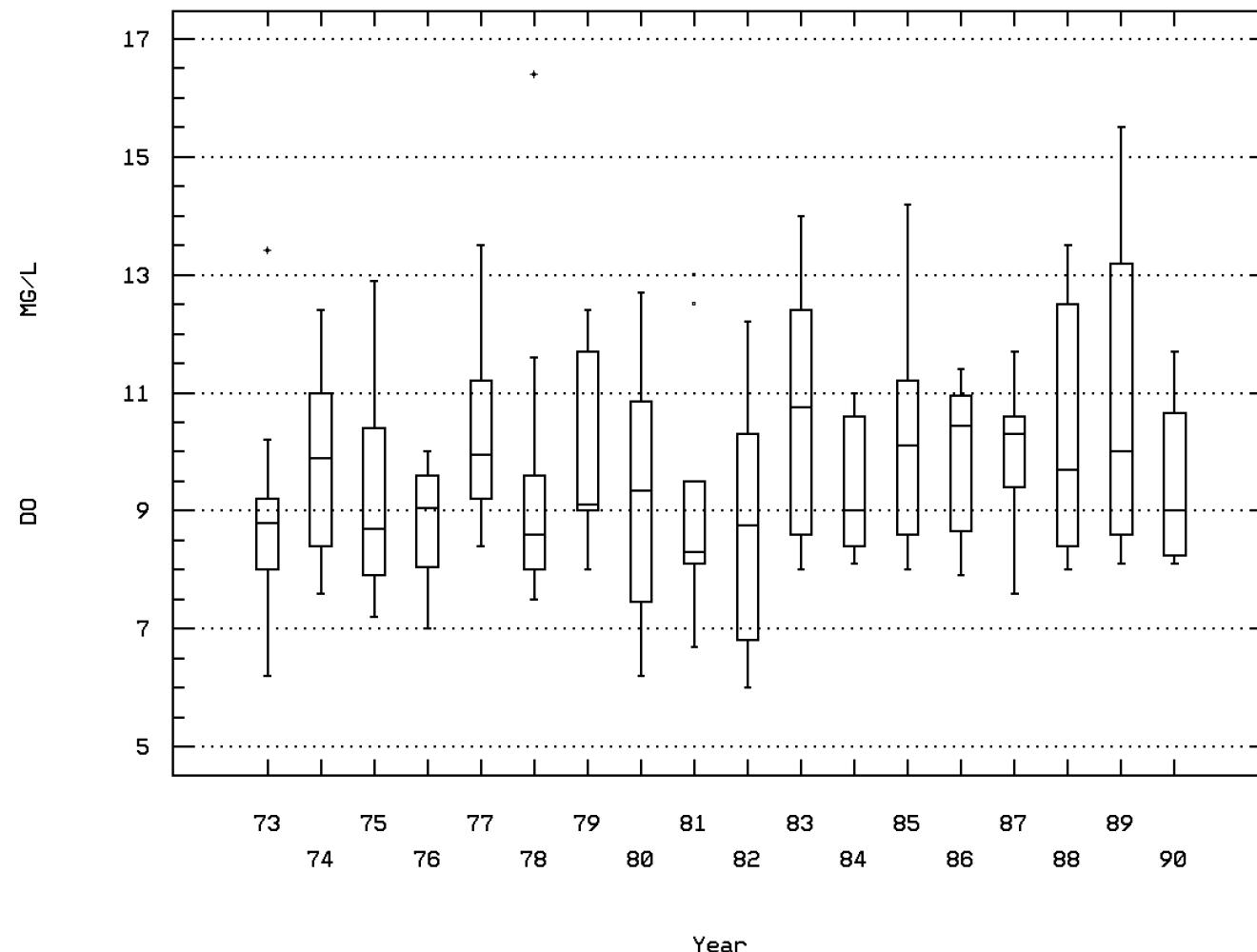
### Annual Analysis for 1990 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	4	19.5	18.1	24.1	9.3	40.62	6.373	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	1	182.	182.	182.	0.	0.	0.	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	4	9.	9.45	11.7	8.1	2.67	1.634	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	6	4.	4.	9.	1.	7.6	2.757	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	6	20.5	25.167	51.	17.	168.967	12.999	**	**	**	**
00400p	PH (STANDARD UNITS)	03/30/73-06/20/90	4	7.545	7.6	8.01	7.3	0.093	0.305	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	4	7.537	7.53	8.01	7.3	0.099	0.315	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	4	0.029	0.03	0.05	0.01	0.	0.017	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	6	128.5	128.667	145.	110.	168.667	12.987	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	6	29.5	28.167	46.	13.	144.567	12.024	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	6	101.	100.5	113.	86.	99.5	9.975	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	6	8.5	9.083	24.	0.5	67.042	8.188	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	6	2.5	3.083	8.	0.5	7.442	2.728	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	6	4.	6.083	20.	0.5	53.642	7.324	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	5	0.05	0.066	0.12	0.02	0.003	0.051	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	5	0.02	0.02	0.03	0.01	0.	0.007	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	5	0.68	0.724	1.2	0.42	0.087	0.295	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	5	0.7	0.68	1.	0.4	0.057	0.239	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5	0.2	0.22	0.4	0.1	0.012	0.11	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.11	0.146	0.35	0.08	0.013	0.115	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	6	7.35	8.75	16.7	6.3	15.779	3.972	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	6	31.	31.667	40.	26.	25.867	5.086	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	5	1000.	2210.	8000.	50.	10665500.	3265.808	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	5	3.	2.917	3.903	1.699	0.622	0.789	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	825.784								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0067 Parameter Code: 00300

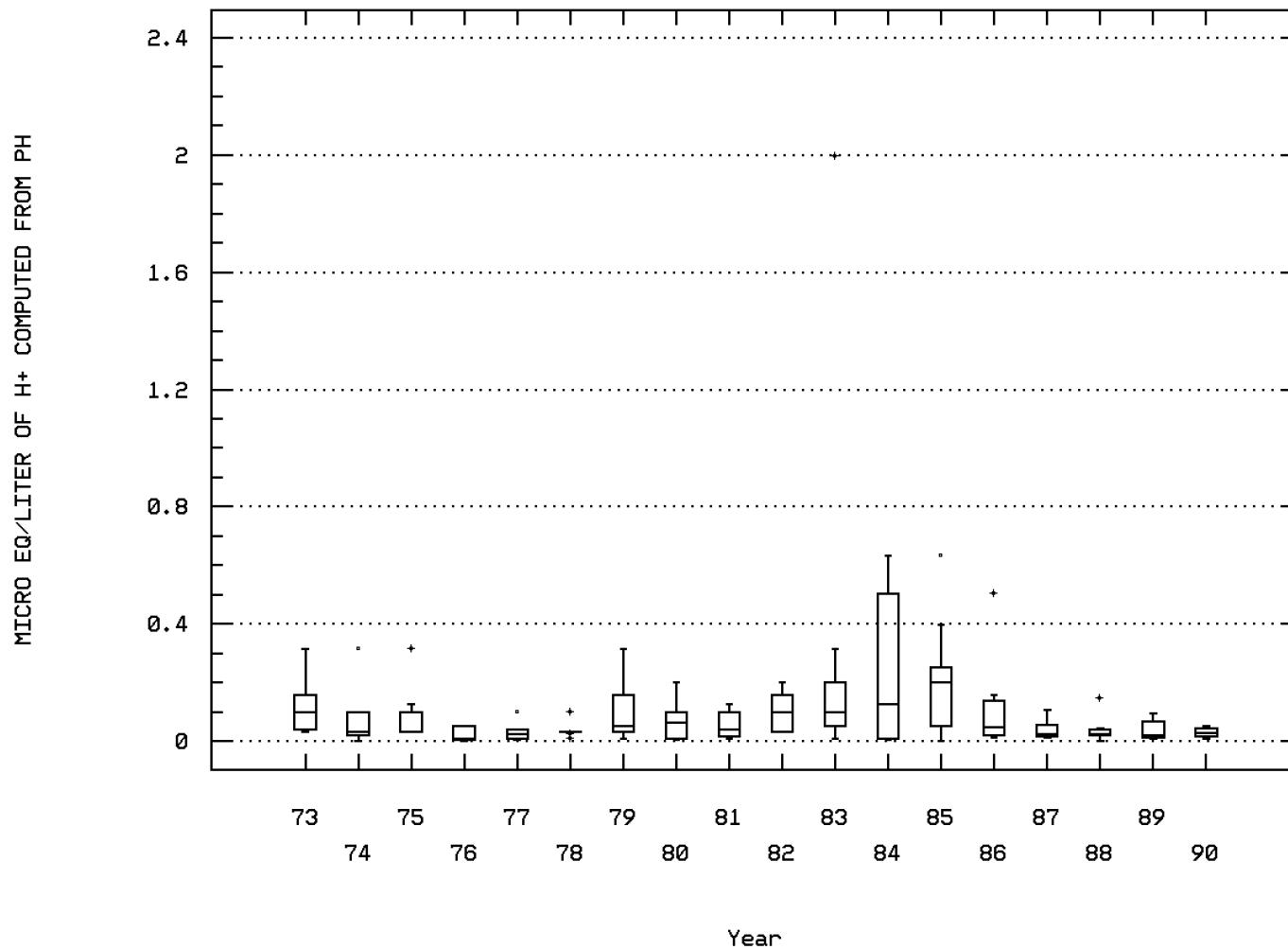
OXYGEN, DISSOLVED



FALLING CREEK EXIT OFF I-95

Station: RICH0067 Parameter Code: 00400

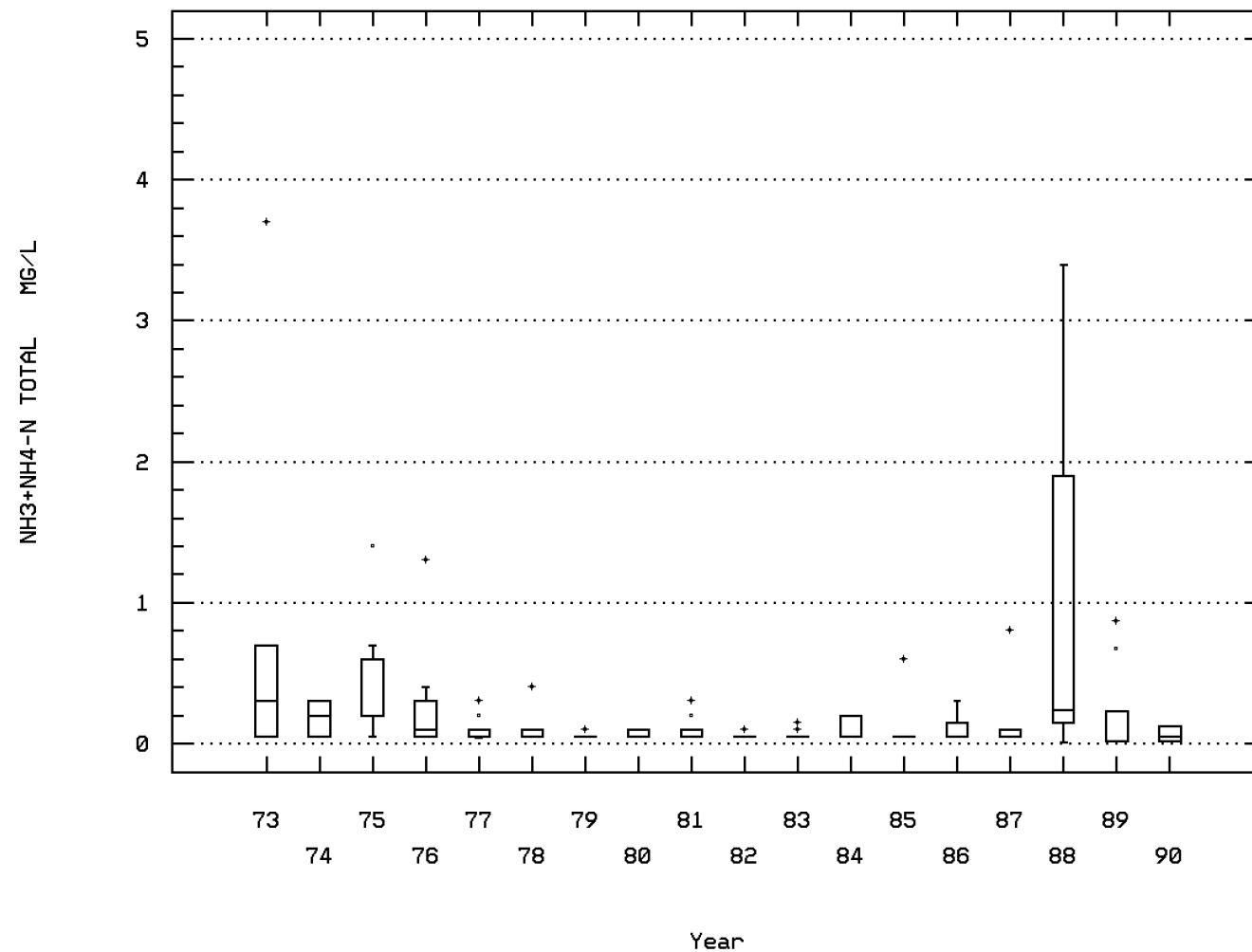
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



FALLING CREEK EXIT OFF I-95

Station: RICH0067 Parameter Code: 00610

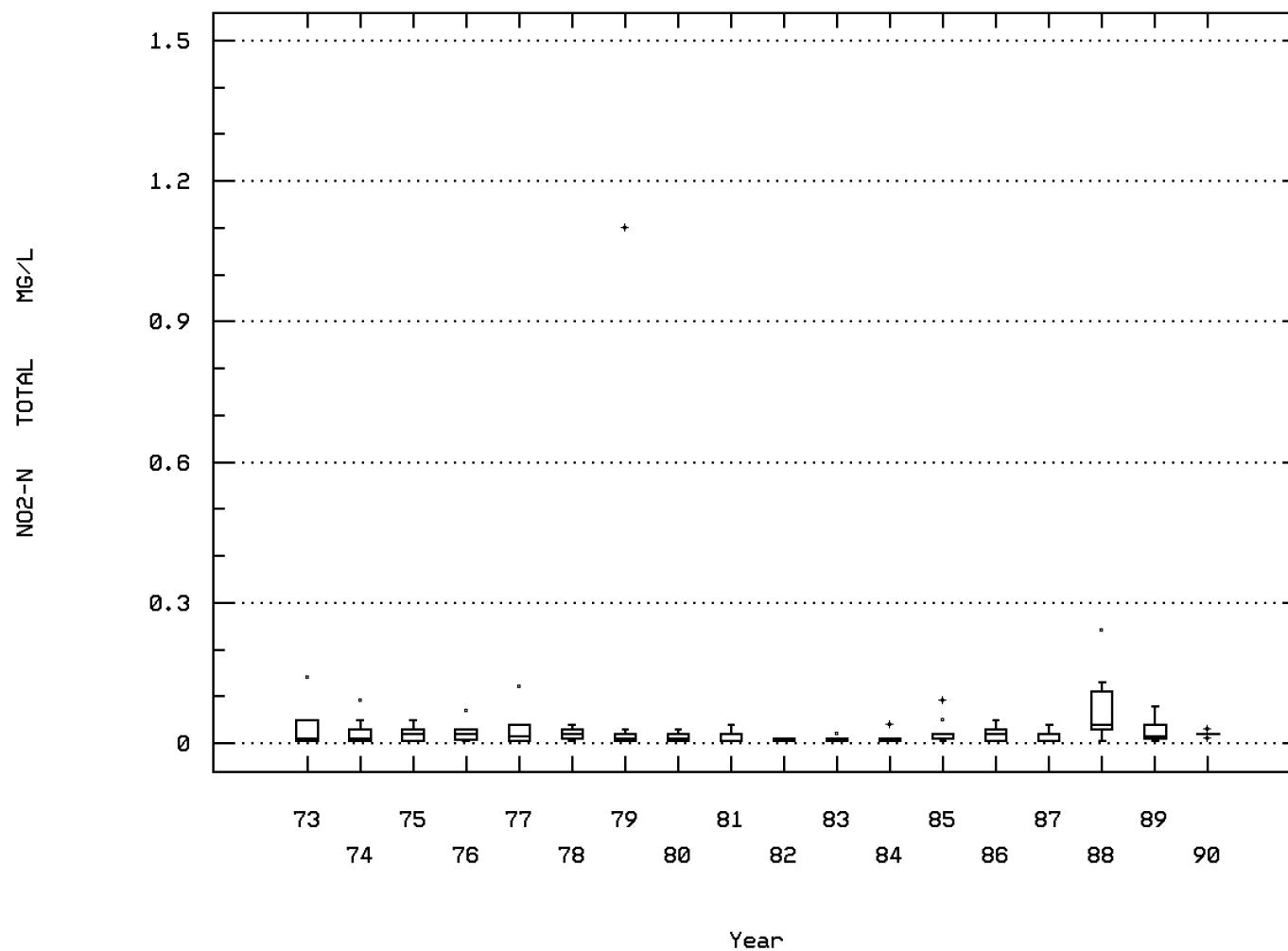
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



FALLING CREEK EXIT OFF I-95

Station: RICH0067 Parameter Code: 00615

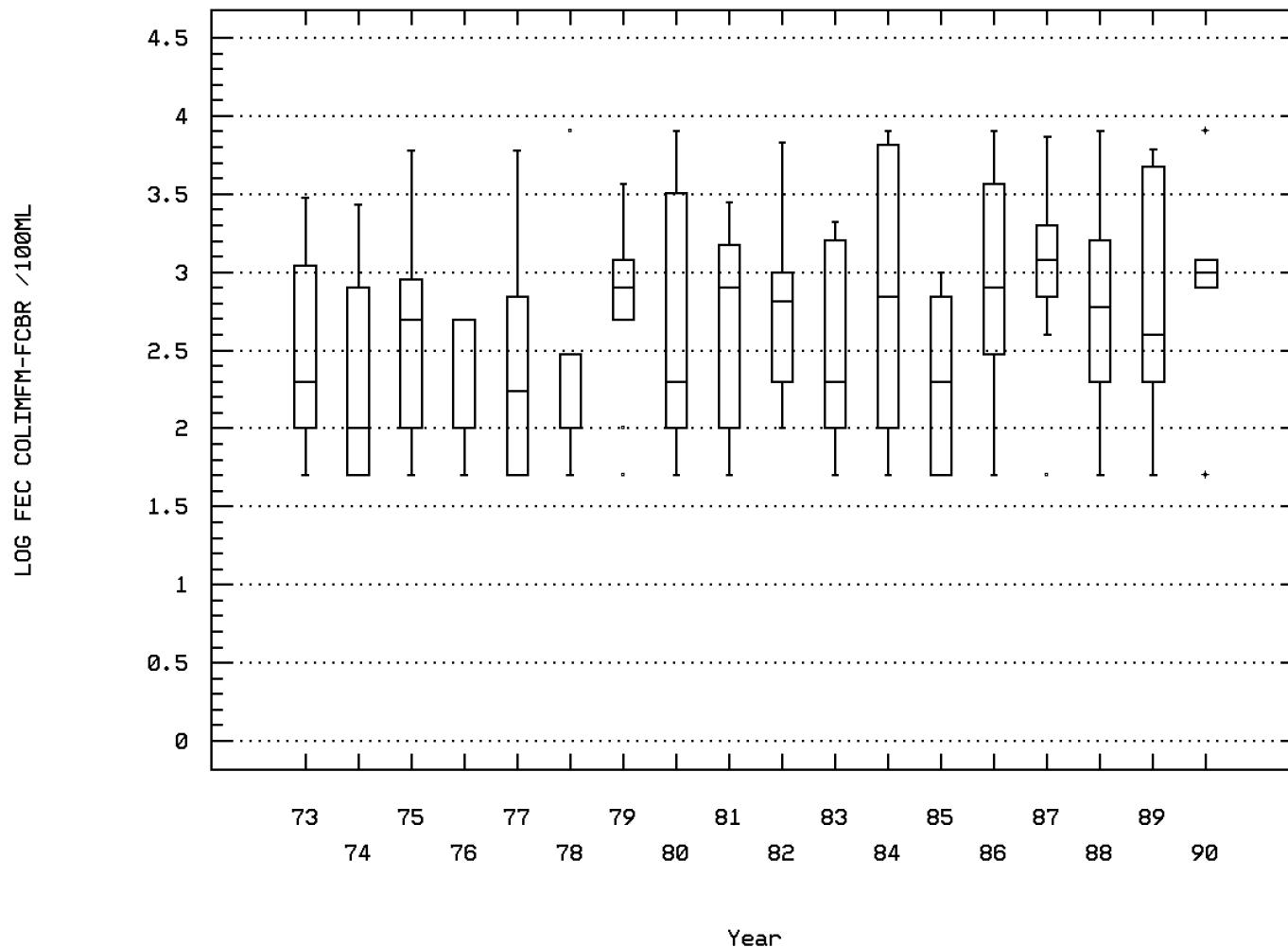
NITRITE NITROGEN, TOTAL (MG/L AS N)



FALLING CREEK EXIT OFF I-95

Station: RICH0067 Parameter Code: 31616

LOG FECAL COLIFORM, MEMBR FILTER, M-FC BR



FALLING CREEK EXIT OFF I-95

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	50	24.3	24.1	32.5	14.4	15.899	3.987	18.91	22.	26.5	30.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	28	243.	280.107	1277.	81.	44321.581	210.527	149.8	197.	306.5	376.4
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	50	8.4	8.356	10.6	6.	0.985	0.992	7.01	7.875	9.	9.49
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	30	1.	2.433	16.	1.	8.599	2.932	1.	1.	2.25	5.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	29	19.	23.552	125.	11.	442.399	21.033	12.	13.5	24.	38.
00400	PH (STANDARD UNITS)	03/30/73-06/20/90	50	7.5	7.562	9.	6.7	0.24	0.49	6.91	7.25	7.843	8.09
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	50	7.5	7.326	9.	6.7	0.297	0.545	6.91	7.25	7.842	8.09
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	50	0.032	0.047	0.2	0.001	0.003	0.051	0.008	0.014	0.057	0.123
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	20	146.	152.8	270.	70.	2172.589	46.611	92.1	124.25	192.75	210.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	19	45.	46.368	96.	10.	334.69	18.295	25.	36.	56.	71.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	19	107.	107.474	223.	44.	1773.93	42.118	60.	77.	140.	160.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	47	6.	13.957	162.	0.	714.987	26.739	1.	2.5	12.	36.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	47	2.5	4.277	18.	0.	17.748	4.213	0.	1.	6.	10.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	47	3.	10.181	144.	0.	560.831	23.682	0.5	2.	7.	21.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	47 ##	0.05	0.199	3.4	0.01	0.253	0.503	0.05	0.05	0.15	0.42
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	47	0.01	0.019	0.11	0.005	0.001	0.023	0.005	0.005	0.03	0.05
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	45	0.28	0.321	1.43	0.02	0.086	0.294	0.025	0.085	0.485	0.692
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	47	0.4	0.657	4.2	0.2	0.424	0.651	0.3	0.3	0.8	1.399
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	28	0.1	0.318	3.9	0.05	0.579	0.761	0.05	0.1	0.2	0.61
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	27	0.05	0.133	1.55	0.03	0.086	0.293	0.03	0.04	0.1	0.208
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	28	7.8	17.189	200.	3.4	1359.711	36.874	5.	6.05	11.75	26.5
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	19	19.	24.	84.	14.	247.	15.716	16.	17.	24.	40.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	46	450.	1320.739	8000.	50.	4480194.019	2116.647	50.	100.	1300.	4390.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	46	2.651	2.666	3.903	1.699	0.43	0.656	1.699	2.	3.11	3.631
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	463.335								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	19 ##	0.05	0.089	0.3	0.05	0.004	0.064	0.05	0.05	0.1	0.2
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	18	0.05	0.053	0.16	0.005	0.001	0.039	0.005	0.028	0.065	0.106

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	71	10.	9.348	21.	0.	23.684	4.867	2.02	6.1	13.	15.88
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	46	186.	214.283	822.	90.	16693.629	129.204	122.7	157.75	231.25	305.2
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	69	11.	11.206	16.4	6.7	2.959	1.72	9.1	10.	12.3	13.5
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	48	2.	3.083	16.	1.	10.589	3.254	1.	1.	3.	6.4
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	49	20.	20.347	63.	7.	92.398	9.612	11.	13.	24.	34.
00400	PH (STANDARD UNITS)	03/30/73-06/20/90	70	7.01	7.129	8.67	5.7	0.253	0.503	6.5	6.838	7.47	7.79
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	70	7.01	6.824	8.67	5.7	0.347	0.589	6.5	6.837	7.47	7.79
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	70	0.098	0.15	1.995	0.002	0.076	0.275	0.016	0.034	0.145	0.316
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	28	130.	168.75	574.	13.	11712.491	108.224	94.6	116.25	178.75	308.3
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	28	41.	43.321	90.	1.	603.411	24.564	5.7	26.25	64.75	79.5
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	28	87.5	125.536	490.	10.	9170.258	95.761	60.3	72.75	148.5	245.5
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	70	6.	20.629	199.	1.	1538.73	39.227	2.05	2.5	16.25	70.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	69	2.5	6.275	104.	0.	178.989	13.379	0.5	2.	6.	13.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	70	4.	15.029	172.	0.	978.202	31.276	0.	2.5	9.75	46.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	71 ##	0.05	0.16	1.9	0.02	0.069	0.263	0.05	0.05	0.2	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	71	0.01	0.032	1.1	0.005	0.017	0.13	0.005	0.005	0.02	0.038
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	66	0.705	0.642	1.28	0.005	0.115	0.339	0.094	0.428	0.9	1.027
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	71	0.4	0.56	2.7	0.2	0.186	0.431	0.2	0.3	0.7	1.
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	49	0.1	0.201	2.8	0.05	0.161	0.401	0.05	0.05	0.2	0.4
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	48	0.05	0.091	0.54	0.005	0.014	0.117	0.02	0.02	0.11	0.211
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	44	7.15	8.923	33.	0.5	38.16	6.177	4.65	5.25	10.	18.
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	31	21.	31.452	210.	2.	1464.923	38.274	9.8	16.	29.	50.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	71	400.	1104.93	8000.	50.	3362939.638	1833.832	50.	100.	1000.	3520.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/20/90	71	2.602	2.553	3.903	1.699	0.456	0.676	1.699	2.	3.	3.544

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			357.272								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	22 ##	0.05	0.195	1.2	0.05	0.102	0.319	0.05	0.05	0.1	0.88
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	22	0.045	0.097	1.199	0.005	0.063	0.251	0.005	0.005	0.063	0.17

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/20/90	59	20.5	19.819	35.	8.4	31.623	5.623	11.5	15.5	24.5	25.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	32	182.	181.	295.	60.	1986.323	44.568	127.8	160.25	205.75	240.5
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/20/90	60	8.95	9.188	12.9	6.8	1.852	1.361	7.82	8.2	10.	10.98
00310	BOD, 5 DAY, 20 DEG C MG/L	07/26/76-06/20/90	36	2.	2.904	11.	0.05	7.046	2.654	1.	1.	3.	7.6
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	36	19.	20.694	51.	2.	119.533	10.933	10.1	13.	24.75	37.8
00400	PH (STANDARD UNITS)	03/30/73-06/20/90	58	7.5	7.469	9.5	6.3	0.374	0.612	6.7	7.	7.76	8.31
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/20/90	58	7.5	7.119	9.5	6.3	0.499	0.706	6.7	7.	7.76	8.31
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/20/90	58	0.032	0.076	0.501	0.	0.012	0.11	0.005	0.017	0.1	0.2
00500	RESIDUE, TOTAL (MG/L)	03/30/73-06/20/90	29	140.	150.586	456.	86.	4593.394	67.775	98.	114.5	162.	201.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/30/73-06/20/90	29	47.	51.724	134.	9.	730.493	27.028	17.	35.	70.5	85.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/30/73-06/20/90	29	89.	98.862	352.	27.	3062.98	55.344	59.	77.	107.	129.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/30/73-06/20/90	57	8.	19.281	270.	0.5	1589.304	39.866	2.5	3.	15.	46.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/30/73-06/20/90	57	4.	5.904	50.	0.5	53.807	7.335	2.	2.5	6.5	12.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/30/73-06/20/90	57	3.	13.781	220.	0.	1115.098	33.393	0.5	2.	9.5	34.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/20/90	55 ##	0.05	0.271	3.699	0.02	0.401	0.633	0.05	0.05	0.2	0.708
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	56	0.02	0.029	0.24	0.005	0.002	0.039	0.005	0.006	0.038	0.056
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/20/90	49	0.43	0.534	4.879	0.025	0.497	0.705	0.08	0.175	0.635	0.92
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/20/90	53	0.5	1.449	40.	0.1	29.454	5.427	0.3	0.4	0.75	1.46
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	30	0.1	0.25	2.5	0.05	0.229	0.478	0.05	0.05	0.2	0.67
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	33	0.07	0.149	1.1	0.01	0.065	0.255	0.02	0.03	0.12	0.538
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	36	7.	9.033	20.	2.7	19.686	4.437	5.	6.45	9.75	17.3
00940	CHLORIDE, TOTAL IN WATER MG/L	03/30/73-06/20/90	29	23.	26.414	120.	12.	381.466	19.531	13.	16.5	28.5	37.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	57	400.	1421.053	8000.	50.	5192673.872	2278.744	50.	100.	1200.	6180.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/20/90	57	2.602	2.65	3.903	1.699	0.478	0.691	1.699	2.	3.079	3.79
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			446.601								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	22	0.1	0.486	5.2	0.05	1.604	1.267	0.05	0.05	0.2	2.44
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	22	0.05	0.225	4.	0.005	0.712	0.844	0.007	0.02	0.055	0.107

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0068

NPS Station ID: RICH0068  
 Location: FOURMILE CREEK, I-295 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: FOURMILE CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.445837/ -77.323616

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-FOM004.72  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

### Parameter Inventory for Station: RICH0068

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-12/07/94	1	13.4	13.4	13.4	13.4	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/07/94-12/07/94	1	64.	64.	64.	64.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-12/07/94	1	8.9	8.9	8.9	8.9	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/07/94-12/07/94	1	5.31	5.31	5.31	5.31	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/07/94-12/07/94	1	5.31	5.31	5.31	5.31	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/07/94-12/07/94	1	4.898	4.898	4.898	4.898	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0068

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00		
00400	PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00		
		Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0069

NPS Station ID: RICH0069

Location: BUOY 166

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin: 02-NORTH ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080206046

RF3 Index: 02080205075300.00

Description:

VIRGINIA STATE WATER CONTROL BOARD  
RIVER: JAMES RIVER

LAT/LON: 37.449753/ -77.420004

Agency: 21VASWCB

FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)

STORET Station ID(s): 2-JMS104.16 /VA2-02-X0139/VA2-4X0139

Within Park Boundary: No

Date Created: / /

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 1.000

RF3 Mile Point: 0.33

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.04

On/Off RF1: OFF

On/Off RF3:

INTENSIVE SURVEY NO. 845101 BASIN: 2 JAMES  
SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0069

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	576	19.3	18.37	31.9	2.6	72.736	8.529	6.1	10.5	26.7	29.1
00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-10/05/93	12	5.4	14.508	51.	1.3	330.906	18.191	1.63	2.925	23.	50.7
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	70	6.55	12.081	213.	0.5	655.082	25.595	2.73	4.4	11.3	19.9
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	145	1.3	1.246	.3	0.1	0.383	0.619	0.4	0.75	1.6	2.1
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	516	180.5	203.372	408.	12.	5727.387	75.68	121.	141.25	265.75	310.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	88	161.5	187.591	523.	92.	5617.325	74.949	114.9	132.75	236.75	290.3
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	450	0.	0.002	0.2	0.	0.	0.019	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	500	9.1	9.504	14.3	5.1	4.811	2.194	6.9	7.6	11.175	12.9
00300	OXYGEN, DISSOLVED MG/L	07/22/68-09/27/83	77	7.4	7.205	12.8	1.	5.217	2.284	4.16	6.1	8.5	9.62
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	98	1.	2.281	74.	0.5	55.36	7.44	0.5	1.	2.	3.03
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	72	10.	10.333	27.	2.5	32.394	5.692	2.5	7.	12.	19.
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	221	7.5	7.588	9.09	6.7	0.17	0.412	7.16	7.3	7.78	8.192
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	221	7.5	7.434	9.09	6.7	0.194	0.44	7.16	7.3	7.78	8.192
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	221	0.032	0.037	0.2	0.001	0.001	0.031	0.006	0.017	0.05	0.069
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	64	7.35	7.325	8.	6.	0.134	0.366	6.85	7.1	7.6	7.8
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	64	7.347	7.13	8.	6.	0.173	0.415	6.85	7.1	7.6	7.8
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	64	0.045	0.074	1.	0.01	0.016	0.127	0.016	0.025	0.079	0.142
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	67	46.	49.525	80.	0.2	238.681	15.449	32.8	41.	61.	71.2
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	3	0.	0.	0.	0.	0.	0.	**	**	**	**
00480	SALINITY - PARTS PER THOUSAND	11/18/82-06/28/83	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	36	121.5	132.611	368.	57.	2859.33	53.473	89.7	104.25	139.75	201.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	36	34.5	38.167	88.	11.	284.543	16.868	18.8	27.25	48.75	58.3
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	36	87.5	94.444	352.	32.	3052.654	55.251	46.7	64.	106.75	153.4
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-09/27/83	4	144.	147.5	173.	129.	355.667	18.859	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	202	8.	15.606	261.	0.5	900.154	30.003	3.	4.	15.	29.1
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	202	2.	3.636	32.	0.	21.781	4.667	1.	1.5	4.	9.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	198	6.	12.28	231.	0.	721.143	26.854	1.5	3.	11.	22.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	140	0.13	0.178	0.94	0.002	0.032	0.179	0.018	0.05	0.25	0.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	71	0.2	0.249	1.099	0.03	0.045	0.212	0.05	0.1	0.33	0.5
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	144	0.005	0.016	0.15	0.001	0.001	0.028	0.002	0.004	0.01	0.045
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	72	0.01	0.013	0.06	0.	0.	0.012	0.005	0.005	0.02	0.03
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	144	0.25	0.251	0.62	0.002	0.015	0.121	0.085	0.16	0.348	0.41
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	70	0.35	0.414	1.549	0.005	0.098	0.313	0.061	0.168	0.58	0.792

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

## Parameter Inventory for Station: RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	3	0.8	0.933	1.3	0.7	0.103	0.321	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	157	0.5	0.56	2.	0.1	0.116	0.341	0.2	0.3	0.7	1.
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-12/15/98	36	0.3	0.337	1.	0.04	0.028	0.166	0.2	0.2	0.4	0.5
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	104	0.11	0.144	0.55	0.03	0.012	0.11	0.05	0.07	0.2	0.32
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	105	0.06	0.089	0.6	0.01	0.01	0.101	0.03	0.04	0.085	0.208
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-09/27/83	3	0.4	0.433	0.7	0.2	0.063	0.252	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	160	0.04	0.073	0.51	0.002	0.007	0.083	0.02	0.03	0.07	0.18
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	153	4.	4.693	57.1	1.2	21.709	4.659	2.34	3.1	5.	7.
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/94-12/15/98	55	59.	63.091	134.	26.	364.38	19.089	41.6	50.	71.	86.8
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	87	9.	11.207	37.	2.5	52.335	7.234	4.	6.	14.	21.2
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	09/08/94-12/15/98	50	16.	20.86	62.	8.	153.511	12.39	10.	12.	29.	37.
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	128	7.3	6.887	10.7	2.3	3.578	1.892	3.98	5.55	8.25	9.11
01002	ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	5 ##	1.	1.5	2.5	0.5	0.875	0.935	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	7 ##	5.	4.357	5.	0.5	2.893	1.701	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	15 ##	5.	5.8	20.	0.5	22.993	4.795	0.5	5.	5.	14.
01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	15 ##	5.	15.	110.	5.	732.143	27.058	5.	5.	10.	62.
01051	LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	13	5.	5.654	10.	1.	11.058	3.325	1.	2.75	9.	10.
01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	1	50.	50.	50.	50.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	4 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	4 ##	30.	31.25	60.	5.	772.917	27.801	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	15 ##	5.	19.667	120.	5.	965.952	31.08	5.	5.	20.	78.
01140	SILICON, DISSOLVED (UG/L AS SI)	06/29/88-04/13/89	16	6350.	6381.25	10000.	4400.	2546958.333	1595.919	4400.	4850.	7475.	8600.
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-09/09/70	13	11000.	236461.538	1100000.	11000.147764102564.103	384400.966	11000.	11000.	460000.	1032000.	
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150	07/22/68-09/09/70	13	4.041	4.644	6.041	4.041	0.706	0.84	4.041	4.041	5.663	6.012
31505	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506				44017.105								
31506	COLIFORM,TOT,MPN,CONFIRMED TEST , TUBE CONFIG.	07/28/83-09/27/83	3	430.	8240.	24000.	290.	186288100.	13648.74	**	**	**	**
31506	LOG COLIFORM,TOT,MPN, CONFIRMED TEST , TUBE CONFIG.	07/28/83-09/27/83	3	2.633	3.159	4.38	2.462	1.126	1.061	**	**	**	**
31506	GM COLIFORM,TOT,MPN, CONFIRMED TEST , TUBE CONFIG.				1441.095								
31614	FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	4	159.5	172.75	350.	22.	22484.917	149.95	**	**	**	**
31614	LOG FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	4	2.139	2.041	2.544	1.342	0.292	0.541	**	**	**	**
31614	GM FECAL COLIFORM,MPN,TUBE CONFIGURATION				109.921								
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	53	170.	921.509	16000.	9.	6568329.139	2562.875	18.8	56.5	490.	2740.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	53	2.23	2.258	4.204	0.954	0.572	0.756	1.274	1.743	2.69	3.408
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				181.018								
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	68	300.	2588.088	80000.	0.	96509311.216	9823.915	50.	50.	1375.	7730.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	68	2.477	2.484	4.903	-6.046	1.723	1.313	1.699	1.699	3.138	3.888
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C				305.101								
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	4	1.1	3.15	10.2	0.2	22.297	4.722	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	07/28/83-10/12/83	4	1.05	1.375	3.2	0.2	1.656	1.287	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
49567	PHOSPHOROUS PARTICULATE, FIELD FILT,SUSP,WTR MG/L	03/23/95-12/15/98	44	0.02	0.047	0.873	0.003	0.018	0.133	0.007	0.012	0.029	0.047
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	43	0.47	0.745	5.606	0.038	0.851	0.923	0.176	0.409	0.806	1.18
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	43	0.066	0.091	0.601	0.018	0.01	0.1	0.026	0.038	0.104	0.183
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	44	0.54	0.542	1.084	0.066	0.029	0.17	0.344	0.431	0.641	0.711
49572	PHOSPHOROUS TOTAL, FIELD FILTRED, DISSLVD,WTR MG/L	03/23/95-12/15/98	46	0.046	0.063	0.605	0.017	0.007	0.086	0.023	0.036	0.061	0.102
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/27/83	4	0.	0.025	0.1	0.	0.002	0.05	**	**	**	**
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	55	0.1	0.111	0.35	0.05	0.006	0.076	0.05	0.05	0.2	0.2
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	55	0.06	0.094	0.35	0.01	0.005	0.073	0.03	0.05	0.12	0.204
71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	15 ##	0.25	0.39	2.	0.15	0.23	0.48	0.15	0.25	0.25	1.34

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0069

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
					Prop. Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	12	2	0.17	7	1	0.14	2	1	0.50	3	0	0.00		
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	70	1	0.01	18	0	0.00	26	1	0.04	26	0	0.00		
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	500	0	0.00	154	0	0.00	176	0	0.00	170	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

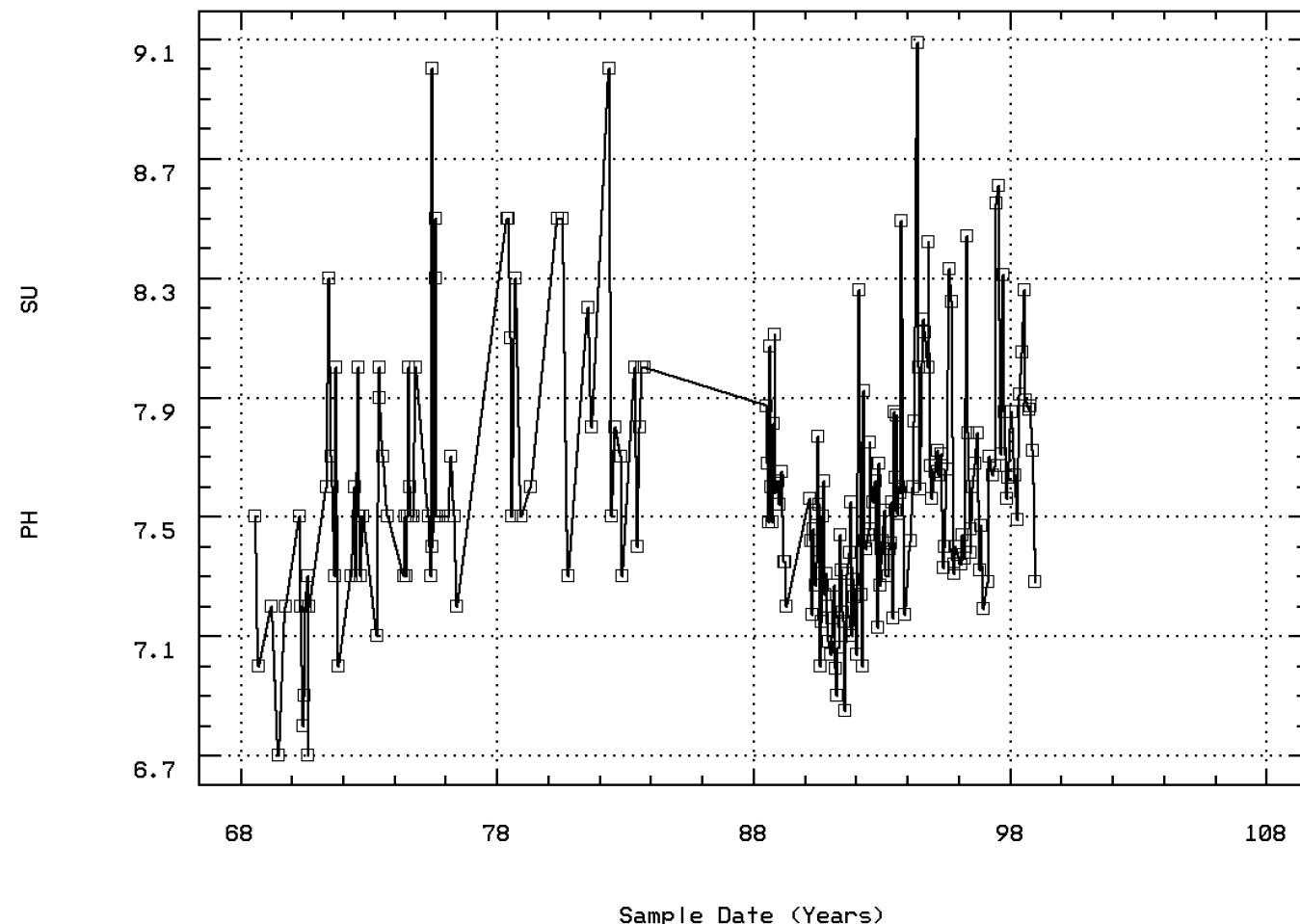
### EPA Water Quality Criteria Analysis for Station: RICH0069

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	77	7	0.09	40	5	0.13	8	0	0.00	29	2	0.07
00400 PH	Fresh Chronic	9.	221	3	0.01	84	0	0.00	58	0	0.00	79	3	0.04
00403 PH, LAB	Other-Lo Lim.	6.5	221	0	0.00	84	0	0.00	58	0	0.00	79	0	0.00
	Fresh Chronic	9.	64	0	0.00	15	0	0.00	22	0	0.00	27	0	0.00
	Other-Lo Lim.	6.5	64	1	0.02	15	0	0.00	22	0	0.00	27	1	0.04
00613 NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	144	0	0.00	46	0	0.00	49	0	0.00	49	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	72	0	0.00	36	0	0.00	9	0	0.00	27	0	0.00
00618 NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	144	0	0.00	46	0	0.00	49	0	0.00	49	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	70	0	0.00	34	0	0.00	9	0	0.00	27	0	0.00
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	36	0	0.00	12	0	0.00	12	0	0.00	12	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	87	0	0.00	31	0	0.00	25	0	0.00	31	0	0.00
	Drinking Water	250.	87	0	0.00	31	0	0.00	25	0	0.00	31	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	50	0	0.00	13	0	0.00	21	0	0.00	16	0	0.00
01002 ARSENIC, TOTAL	Fresh Acute	360.	5	0	0.00				1	0	0.00	4	0	0.00
	Drinking Water	50.	5	0	0.00				1	0	0.00	4	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00				1	0	0.00			
	Drinking Water	5.	1 &	0	0.00				1	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	15	2	0.13	4	0	0.00	2	0	0.00	9	2	0.22
	Drinking Water	1300.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
01051 LEAD, TOTAL	Fresh Acute	82.	13	0	0.00	4	0	0.00	2	0	0.00	7	0	0.00
	Drinking Water	15.	13	0	0.00	4	0	0.00	2	0	0.00	7	0	0.00
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	4	0	0.00							4	0	0.00
	Drinking Water	100.	4	0	0.00							4	0	0.00
01067 NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00				2	0	0.00	2	0	0.00
	Drinking Water	100.	4	0	0.00				2	0	0.00	2	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	15	1	0.07	4	0	0.00	2	0	0.00	9	1	0.11
	Drinking Water	5000.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	13	13	1.00	8	8	1.00				5	5	1.00
31506 COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	3	1	0.33	3	1	0.33						
31614 FECAL COLIFORM, MPN, TUBE CONFIGURATION	Other-Hi Lim.	200.	4	2	0.50							4	2	0.50
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	53	23	0.43	15	5	0.33	22	11	0.50	16	7	0.44
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	68	42	0.62	35	23	0.66	10	5	0.50	23	14	0.61
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00				1	0	0.00	1	0	0.00
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	2	0	0.00				1	0	0.00	1	0	0.00
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	4	1	0.25	3	1	0.33				1	0	0.00
71900 MERCURY, TOTAL	Fresh Acute	2.4	15	0	0.00	5	0	0.00	2	0	0.00	8	0	0.00
	Drinking Water	2.	15	1	0.07	5	1	0.20	2	0	0.00	8	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station: RICH0069 Parameter Code: 00400

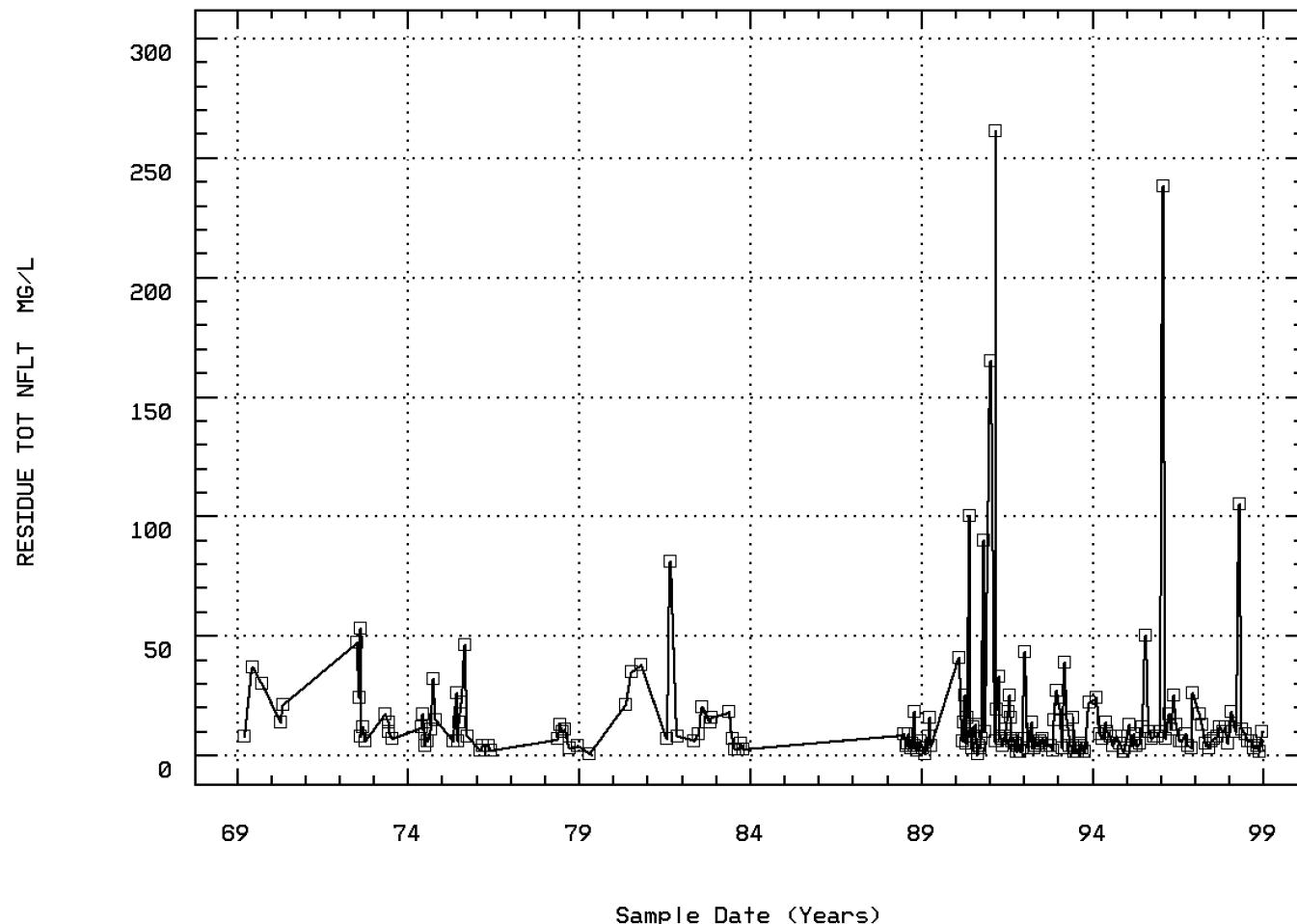
PH (STANDARD UNITS)



BUOY 166

Station: RICH0069 Parameter Code: 00530

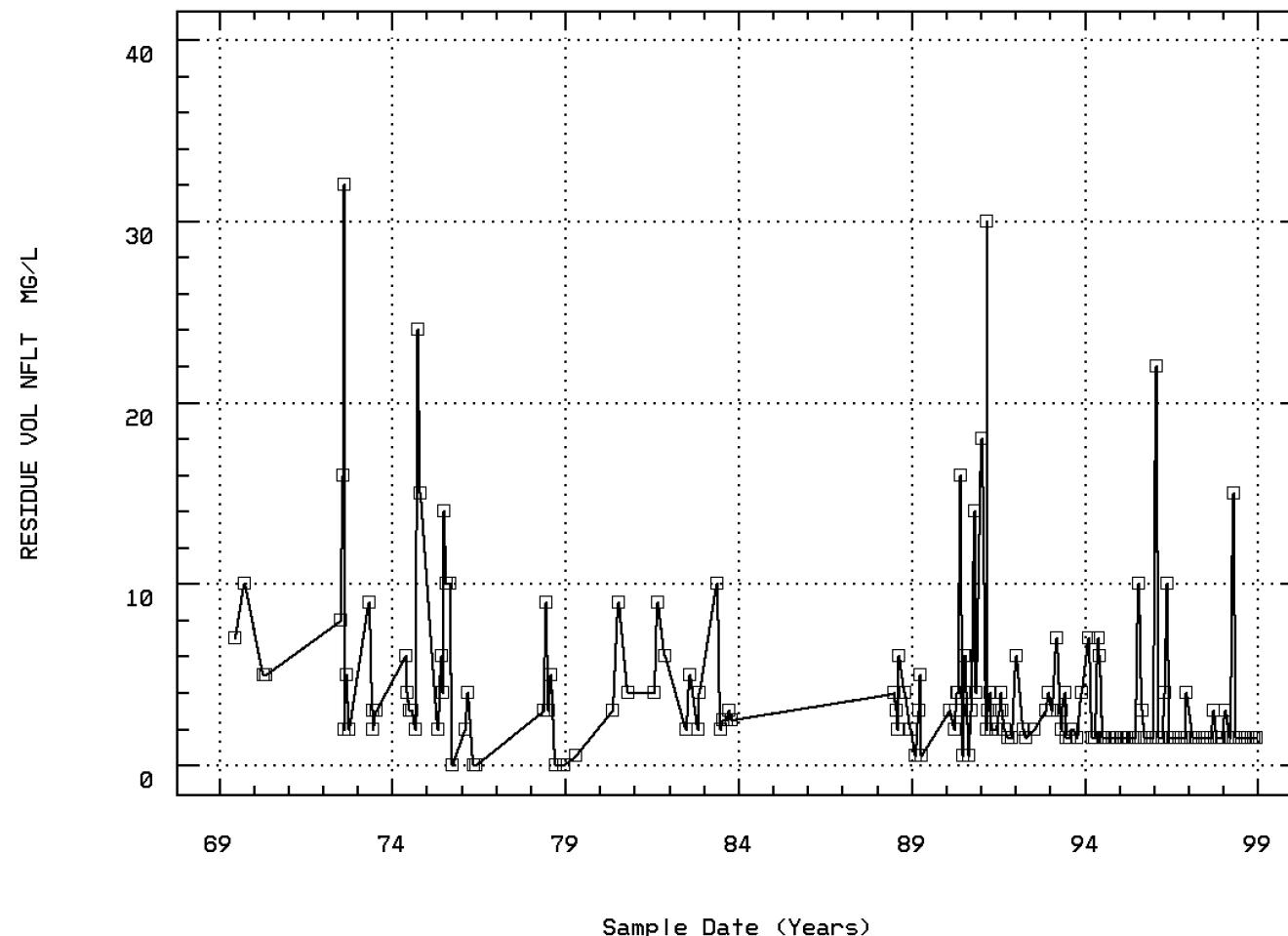
RESIDUE, TOTAL NONFILTRABLE (MG/L)



BUOY 166

Station: RICH0069 Parameter Code: 00535

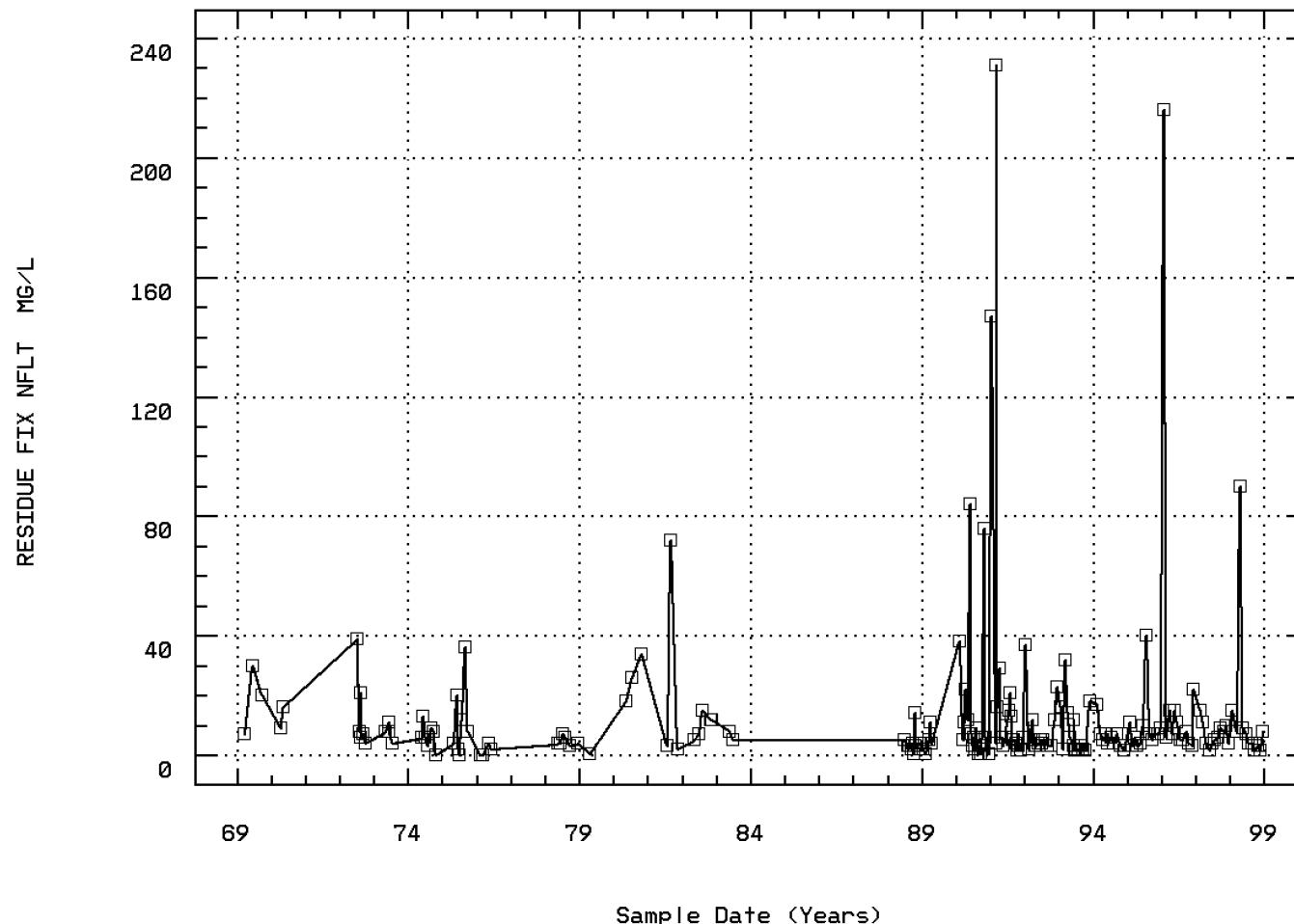
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



BUOY 166

Station: RICH0069 Parameter Code: 00540

RESIDUE, FIXED NONFILTRABLE (MG/L)



BUOY 166

### Annual Analysis for 1968 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	2	28.35	28.35	30.	26.7	5.445	2.333	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	2	7.25	7.25	7.5	7.	0.125	0.354	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	2	7.182	7.182	7.5	7.	0.134	0.367	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	2	0.066	0.066	0.1	0.032	0.002	0.048	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	3	23.3	20.	25.6	11.1	60.73	7.793	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	3	3.9	26.567	74.	1.8	1688.543	41.092	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.2	7.033	7.2	6.7	0.083	0.289	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	3	7.2	6.964	7.2	6.7	0.09	0.301	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	3	0.063	0.109	0.2	0.063	0.006	0.079	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	3	6.8	6.733	7.4	6.	0.493	0.702	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	3	6.8	6.399	7.4	6.	0.661	0.813	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/20/69-12/15/98	3	0.158	0.399	1.	0.04	0.274	0.523	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	3	32.	30.333	51.	8.	464.333	21.548	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	30.	25.	37.	8.	229.	15.133	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	7.	6.	10.	1.	21.	4.583	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	20.	19.	30.	7.	133.	11.533	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	8	27.5	25.35	31.1	16.1	28.797	5.366	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	7	4.2	4.771	8.6	1.	7.702	2.775	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	8	7.2	7.1	7.5	6.7	0.074	0.273	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	8	7.2	7.025	7.5	6.7	0.081	0.284	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	8	0.063	0.094	0.2	0.032	0.004	0.06	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	2	7.3	7.3	7.4	7.2	0.02	0.141	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	2	7.289	7.289	7.4	7.2	0.02	0.142	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/20/69-12/15/98	2	0.051	0.051	0.063	0.04	0.	0.016	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	2	37.5	37.5	45.	30.	112.5	10.607	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	17.5	17.5	21.	14.	24.5	4.95	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	5.	5.	5.	5.	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	12.5	12.5	16.	9.	24.5	4.95	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	8	1.349	1.225	2.	0.4	0.348	0.59	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	7	23.3	23.957	30.6	17.2	26.946	5.191	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	7	7.6	7.643	8.3	7.	0.183	0.428	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	7	7.6	7.473	8.3	7.	0.216	0.465	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	7	0.025	0.034	0.1	0.005	0.001	0.033	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	7	0.7	0.614	0.9	0.3	0.048	0.219	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	7	23.9	23.257	26.7	19.4	9.55	3.09	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	8	7.5	7.5	8.	7.3	0.054	0.233	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	8	7.5	7.455	8.	7.3	0.057	0.238	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	8	0.032	0.035	0.05	0.01	0.	0.014	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	18.	25.	53.	6.	417.6	20.435	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	6.5	10.833	32.	2.	134.567	11.6	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	7.5	14.167	39.	4.	184.567	13.586	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	8	0.4	0.45	0.8	0.2	0.046	0.214	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	6	6.5	7.333	12.	4.	10.267	3.204	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	5	27.2	25.98	29.4	17.8	22.952	4.791	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	1	2.	2.	2.	0.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.7	7.64	8.	7.1	0.128	0.358	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.7	7.513	8.	7.1	0.148	0.385	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	5	0.02	0.031	0.079	0.01	0.001	0.028	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	12.	12.	17.	7.	19.333	4.397	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	3.	4.25	9.	2.	10.25	3.202	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	8.	7.75	11.	4.	8.25	2.872	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	4	0.4	0.45	0.7	0.3	0.03	0.173	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	4	5.5	6.	10.	3.	10.	3.162	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	9	24.4	23.822	28.	15.	16.074	4.009	15.	21.85	26.95	28.
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	9	7.5	7.578	8.	7.3	0.067	0.259	7.3	7.4	7.8	8.
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	9	7.5	7.52	8.	7.3	0.071	0.266	7.3	7.4	7.8	8.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	9	0.032	0.03	0.05	0.01	0.	0.014	0.01	0.018	0.041	0.05
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CaCO <sub>3</sub> )	03/20/69-12/15/98	2	20.6	20.6	41.	2.	832.32	28.85	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	8	11.5	13.25	32.	4.	75.929	8.714	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	8	3.5	7.5	24.	2.	62.	7.874	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	8	6.	5.75	13.	0.	18.786	4.334	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	8	0.4	0.5	1.299	0.3	0.108	0.329	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	8	11.5	11.	19.	5.	23.714	4.87	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	8	26.15	24.863	29.4	16.1	22.854	4.781	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	9	1.	1.278	3.	0.5	0.569	0.755	0.5	1.	1.5	3.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	9	7.5	7.833	9.	7.3	0.368	0.606	7.3	7.45	8.4	9.
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	9	7.5	7.601	9.	7.3	0.428	0.654	7.3	7.45	8.4	9.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	9	0.032	0.025	0.05	0.001	0.018	0.001	0.004	0.036	0.05	
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	7	14.	18.286	46.	6.	211.238	14.534	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	7	6.	6.571	14.	0.	24.952	4.995	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	7	8.	11.714	36.	0.	160.571	12.672	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	9	0.3	0.289	0.4	0.1	0.011	0.105	0.1	0.2	0.4	0.4
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	9	6.	6.333	11.	5.	3.75	1.936	5.	5.	7.	11.
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	8	10.	11.625	20.	4.	37.411	6.116	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	4	15.6	14.475	21.1	5.6	49.436	7.031	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	4	1.5	1.5	2.	1.	0.333	0.577	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.5	7.475	7.7	7.2	0.042	0.206	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	4	7.5	7.437	7.7	7.2	0.044	0.211	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	4	0.032	0.037	0.063	0.02	0.	0.019	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	3.	3.	4.	2.	1.333	1.155	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	1.	1.5	4.	0.	3.667	1.915	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	4	1.	1.5	4.	0.	3.667	1.915	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	4	0.2	0.25	0.4	0.2	0.01	0.1	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	4	5.	5.5	7.	5.	1.	1.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	4	7.5	7.25	8.	6.	0.917	0.957	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	6	24.75	22.583	29.5	7.	69.342	8.327	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	3	2.	1.667	2.	1.	0.333	0.577	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	6	8.2	8.067	8.5	7.5	0.215	0.463	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	6	8.189	7.862	8.5	7.5	0.265	0.515	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	6	0.006	0.014	0.032	0.003	0.	0.014	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	8.5	8.	13.	3.	16.	4.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	3.	3.333	9.	0.	11.467	3.386	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	6	4.	4.667	7.	3.	2.267	1.506	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	6	0.25	0.467	1.7	0.1	0.379	0.615	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	5	8.	7.6	9.	6.	1.3	1.14	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	6	10.5	11.333	22.	4.	39.867	6.314	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	1	6.	6.	6.	6.	0.	0.	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	3	21.	23.333	30.	19.	34.333	5.859	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	3	218.	210.333	265.	148.	3466.333	58.876	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	2	2.	2.	2.	2.	0.	0.	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	3	10.	14.	26.	6.	112.	10.583	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	3	8.5	8.1	8.5	7.3	0.48	0.693	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	3	8.5	7.726	8.5	7.3	0.69	0.831	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	3	0.003	0.019	0.05	0.003	0.001	0.027	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	35.	31.333	38.	21.	82.333	9.074	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	4.	5.333	9.	3.	10.333	3.215	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	26.	26.	34.	18.	64.	8.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	3	0.3	0.367	0.6	0.2	0.043	0.208	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	3	0.2	0.16	0.23	0.05	0.009	0.096	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	3	0.1	0.13	0.23	0.06	0.008	0.089	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	3	9.	8.667	10.	7.	2.333	1.528	**	**	**	**

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### Annual Analysis for 1981 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	2	26.25	26.25	27.5	25.	3.125	1.768	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	3	216.	226.	253.	209.	559.	23.643	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	3	2.	1.667	2.	1.	0.333	0.577	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	3	11.	15.333	25.	10.	70.333	8.386	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	2	8.	8.	8.2	7.8	0.08	0.283	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	2	7.955	7.955	8.2	7.8	0.084	0.29	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	2	0.011	0.011	0.016	0.006	0.	0.007	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	8.	32.	81.	7.	1801.	42.438	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	6.	6.333	9.	4.	6.333	2.517	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	3	3.	25.667	72.	2.	1610.333	40.129	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	3	0.4	0.433	0.5	0.4	0.003	0.058	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	3	0.2	0.2	0.3	0.1	0.01	0.1	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	3	0.2	0.193	0.23	0.15	0.002	0.04	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	3	9.	8.333	10.	6.	4.333	2.082	**	**	**	**

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### Annual Analysis for 1982 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	5	23.	19.4	27.5	9.	60.675	7.789	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	5	160.	167.6	212.	131.	920.3	30.336	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	5	2.	2.	3.	1.	0.5	0.707	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	5	12.	14.	20.	7.	29.5	5.431	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.7	7.86	9.	7.3	0.443	0.666	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.7	7.625	9.	7.3	0.512	0.716	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	5	0.02	0.024	0.05	0.001	0.	0.018	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	14.	13.	20.	6.	31.	5.568	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	2.	2.8	5.	1.	2.7	1.643	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	12.	10.2	15.	5.	16.7	4.087	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	5	0.7	0.68	0.9	0.4	0.037	0.192	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	5	0.2	0.18	0.2	0.1	0.002	0.045	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	5	0.14	0.118	0.17	0.07	0.002	0.045	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	5	4.	4.	5.	3.	1.	1.	**	**	**	**

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### Annual Analysis for 1983 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	5	27.5	25.2	29.5	18.5	26.2	5.119	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	8##	0.225	0.318	1.	0.185	0.077	0.277	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	5	230.	220.8	295.	139.	3870.7	62.215	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	2	1.	1.	1.	1.	0.	0.	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	2	6.5	6.5	7.	6.	0.5	0.707	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	5	8.	7.84	8.	7.4	0.068	0.261	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	5	8.	7.766	8.	7.4	0.075	0.274	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	5	0.01	0.017	0.04	0.01	0.	0.013	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	3	71.	70.333	79.	61.	81.333	9.018	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	6##	3.75	6.25	18.	2.5	36.475	6.039	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	6##	2.5	3.75	10.	2.	9.475	3.078	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	2	6.5	6.5	8.	5.	4.5	2.121	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	5	0.7	0.72	1.	0.3	0.087	0.295	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	5	0.2	0.29	0.5	0.5	0.05	0.041	0.201	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	5	0.2	0.22	0.4	0.04	0.019	0.137	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	5	4.	4.2	6.	3.	1.2	1.095	**	**	**	**

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### Annual Analysis for 1988 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	43	22.4	19.351	31.	2.6	72.589	8.52	6.02	13.9	28.	30.32
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	1	3.6	3.6	3.6	3.6	0.	0.	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	10	1.25	1.09	1.5	0.6	0.137	0.37	0.6	0.675	1.4	1.49
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	43	306.	304.767	397.	210.	2710.468	52.062	240.4	250.	345.	394.6
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	1	238.	238.	238.	238.	0.	0.	**	**	**	**
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	43	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	43	7.9	8.312	14.3	5.1	6.126	2.475	6.14	6.5	9.6	12.8
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	11	7.62	7.719	8.11	7.48	0.048	0.219	7.48	7.58	7.87	8.102
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	11	7.62	7.675	8.11	7.48	0.05	0.223	7.48	7.58	7.87	8.102
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	11	0.024	0.021	0.033	0.008	0.	0.009	0.008	0.013	0.026	0.033
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	5.	6.	18.	1.	22.2	4.712	1.2	3.	9.	16.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	2.	2.364	6.	1.	2.855	1.69	1.	1.	4.	5.6

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### Annual Analysis for 1988 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	3.	3.682	14.	0.5	13.714	3.703	0.6	1.	4.	12.2
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	10	0.645	0.616	0.94	0.24	0.044	0.21	0.257	0.448	0.778	0.929
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.08	0.079	0.15	0.01	0.002	0.043	0.016	0.04	0.11	0.148
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.19	0.229	0.36	0.14	0.006	0.08	0.144	0.16	0.28	0.356
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	10	1.05	1.077	1.4	0.8	0.045	0.213	0.807	0.893	1.3	1.39
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	11	0.35	0.343	0.55	0.2	0.009	0.095	0.206	0.27	0.39	0.52
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	12	0.315	0.331	0.6	0.15	0.018	0.135	0.165	0.228	0.393	0.585
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	11	0.29	0.29	0.51	0.15	0.01	0.1	0.156	0.21	0.34	0.482
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	11	4.	4.036	5.3	2.4	0.669	0.818	2.6	3.5	4.9	5.24

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### Annual Analysis for 1989 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	20	7.8	8.855	13.2	5.7	8.89	2.982	5.71	6.025	11.5	13.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	1	7.3	7.3	7.3	0.	0.	0.	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	5	1.1	1.12	1.5	0.7	0.112	0.335	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	20	142.	159.1	201.	129.	771.989	27.785	131.	138.	186.75	197.8
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	3	144.	157.	195.	132.	1119.	33.451	**	**	**	**
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	20	11.9	11.56	12.6	10.5	0.73	0.854	10.51	10.6	12.375	12.5
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.35	7.418	7.65	7.2	0.031	0.177	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	5	7.35	7.39	7.65	7.2	0.032	0.18	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	5	0.045	0.041	0.063	0.022	0.	0.016	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	1	41.	41.	41.	41.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	4.	6.3	16.	0.5	36.7	6.058	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	1.	2.	5.	0.5	3.875	1.969	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	5	4.	4.5	11.	0.5	16.25	4.031	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	5	0.25	0.256	0.44	0.06	0.024	0.154	**	**	**	**
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	5	0.01	0.015	0.03	0.005	0.	0.01	**	**	**	**
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	5	0.33	0.316	0.41	0.23	0.004	0.067	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	5	0.7	0.62	0.8	0.4	0.027	0.164	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	5	0.14	0.142	0.19	0.1	0.001	0.035	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	5	0.08	0.098	0.17	0.06	0.002	0.044	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	5	0.08	0.096	0.18	0.06	0.002	0.048	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	5	2.9	2.96	3.4	2.6	0.113	0.336	**	**	**	**

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### Annual Analysis for 1990 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	62	21.45	20.631	30.9	6.4	49.057	7.004	10.5	14.65	27.125	29.45
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	15	1.3	1.293	2.2	0.2	0.242	0.492	1.	1.5	2.08	
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	63	158.	190.603	378.	106.	4435.372	66.599	120.	139.	234.	303.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	18	160.5	172.111	321.	104.	3703.046	60.853	106.7	130.	202.75	292.2
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	62	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	62	8.3	8.703	13.	6.7	2.54	1.594	6.93	7.4	9.8	11.
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	8	9.	8.75	13.	4.	12.786	3.576	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	18	7.385	7.365	7.77	7.	0.042	0.204	7.072	7.193	7.518	7.635

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### Annual Analysis for 1990 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	18	7.384	7.321	7.77	7.	0.044	0.209	7.072	7.192	7.517	7.635
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	18	0.041	0.048	0.1	0.017	0.	0.022	0.023	0.03	0.064	0.085
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	1	42.	42.	42.	42.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	8.	19.289	100.	0.5	804.148	28.357	1.	4.	16.	90.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	3.	3.947	16.	0.5	18.247	4.272	0.5	1.	4.	14.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	19	6.	15.395	84.	0.5	600.488	24.505	0.5	2.	12.	76.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	19	0.15	0.194	0.53	0.02	0.02	0.143	0.02	0.08	0.32	0.4
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	19	0.01	0.036	0.14	0.005	0.002	0.042	0.005	0.005	0.06	0.11
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	19	0.27	0.232	0.41	0.02	0.017	0.129	0.04	0.1	0.33	0.41
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	19	0.5	0.5	0.9	0.2	0.043	0.208	0.2	0.3	0.7	0.8
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	19	0.1	0.098	0.23	0.03	0.003	0.052	0.04	0.06	0.12	0.22
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	19	0.04	0.049	0.1	0.01	0.001	0.024	0.02	0.03	0.07	0.08
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	19	0.04	0.042	0.07	0.01	0.	0.02	0.01	0.03	0.06	0.07
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	19	2.8	2.984	4.6	1.2	0.873	0.934	1.9	2.2	3.7	4.3
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	19	7.7	7.016	9.6	2.9	3.264	1.807	3.2	6.2	8.	9.2

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### Annual Analysis for 1991 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	66	20.4	18.918	29.2	6.4	58.086	7.621	9.7	10.825	26.6	27.
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	20	1.25	1.175	2.3	0.1	0.44	0.663	0.14	0.6	1.575	2.18
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	66	163.5	180.727	297.	103.	4104.786	64.069	108.	131.75	237.	286.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	9	132.	147.667	252.	99.	2247.	47.403	99.	111.5	171.5	252.
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	66	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	66	8.65	9.091	12.4	6.3	3.508	1.873	6.9	7.2	11.	11.33
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	18	7.17	7.182	7.55	6.85	0.034	0.185	6.895	7.055	7.313	7.451
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	18	7.17	7.146	7.55	6.85	0.036	0.189	6.895	7.055	7.312	7.451
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	18	0.068	0.072	0.141	0.028	0.001	0.03	0.035	0.049	0.088	0.127
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	20	7.5	30.65	261.	1.5	4196.95	64.784	1.75	5.25	18.75	151.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	20	2.	4.15	30.	1.	50.845	7.131	1.	1.	3.	16.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	20	6.	26.65	231.	1.5	3318.213	57.604	1.65	4.	15.75	135.2
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	20	0.14	0.168	0.54	0.02	0.02	0.142	0.04	0.053	0.24	0.398
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	20##	0.005	0.008	0.03	0.005	0.	0.008	0.005	0.005	0.028	0.028
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	20	0.265	0.255	0.42	0.04	0.011	0.103	0.112	0.163	0.325	0.414
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	20	0.6	0.54	1.1	0.2	0.064	0.252	0.2	0.3	0.7	0.89
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	20	0.085	0.111	0.39	0.05	0.007	0.086	0.05	0.063	0.11	0.291
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	20	0.05	0.051	0.09	0.02	0.	0.02	0.03	0.03	0.06	0.08
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	20	0.04	0.041	0.07	0.02	0.	0.016	0.02	0.03	0.058	0.069
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	20	3.75	6.765	57.1	1.4	145.462	12.061	1.58	2.875	4.875	10.61
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	20	6.85	6.8	9.5	2.4	2.997	1.731	4.42	5.925	8.	9.14

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### Annual Analysis for 1992 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	48	17.1	15.827	30.6	5.	63.999	8.	5.1	8.	22.1	26.84
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	15	1.6	1.56	3.	0.4	0.515	0.718	0.46	1.2	2.1	2.64
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	48	178.	200.708	309.	102.	4140.083	64.343	116.5	158.	276.5	287.
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	48	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

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### Annual Analysis for 1992 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	48	9.25	10.081	13.8	7.2	4.792	2.189	7.4	8.175	12.275	13.6
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	15	7.44	7.478	8.26	7.	0.114	0.338	7.024	7.24	7.68	8.056
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	15	7.44	7.374	8.26	7.	0.126	0.355	7.024	7.24	7.68	8.056
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	15	0.036	0.042	0.1	0.005	0.001	0.028	0.009	0.021	0.058	0.095
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	15	5.	9.867	43.	2.	127.124	11.275	2.6	4.	14.	33.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	15	1.	1.833	6.	1.	2.131	1.46	1.	1.	2.	4.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	15	4.	8.133	37.	1.	95.838	9.79	1.6	3.	12.	28.6
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	15	0.13	0.153	0.35	0.06	0.008	0.089	0.072	0.09	0.21	0.332
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	15 ##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.02
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	15	0.27	0.26	0.44	0.04	0.015	0.124	0.094	0.16	0.37	0.428
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	15	0.4	0.433	0.6	0.3	0.008	0.09	0.3	0.4	0.5	0.54
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	15	0.07	0.089	0.15	0.05	0.001	0.034	0.05	0.06	0.12	0.138
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	15	0.04	0.049	0.1	0.02	0.	0.019	0.032	0.04	0.05	0.088
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	15	0.04	0.041	0.09	0.02	0.	0.019	0.02	0.03	0.04	0.078
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	15	4.	3.593	5.1	1.7	1.391	1.179	1.76	2.5	4.4	5.1
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	15	6.3	6.213	9.2	2.5	3.403	1.845	3.22	4.9	7.7	8.9

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### Annual Analysis for 1993 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	57	22.8	19.747	31.4	5.1	84.083	9.17	6.7	9.35	29.15	30.08
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	11	3.5	10.427	37.	0.5	152.732	12.358	0.8	2.2	15.	35.6
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	17	1.6	1.553	2.9	0.4	0.533	0.73	0.4	0.9	2.15	2.5
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	57	185.	212.386	408.	12.	8707.598	93.315	126.6	137.	275.	371.2
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	54	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	57	8.4	9.16	13.4	6.4	5.152	2.27	6.68	7.2	11.55	12.4
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	17	7.52	7.544	8.49	7.16	0.097	0.312	7.168	7.345	7.615	7.978
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	17	7.52	7.466	8.49	7.16	0.103	0.322	7.168	7.345	7.615	7.978
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	17	0.03	0.034	0.069	0.003	0.	0.018	0.012	0.024	0.045	0.068
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	17	4.	8.971	39.	1.5	103.671	10.182	1.5	3.	15.5	25.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	17	1.5	2.206	7.	1.	2.564	1.601	1.	1.	3.	4.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	17	3.	7.029	32.	1.	74.233	8.616	1.	1.5	13.	20.8
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	17	0.16	0.161	0.39	0.04	0.013	0.115	0.04	0.05	0.255	0.374
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	17 ##	0.005	0.008	0.02	0.005	0.	0.004	0.005	0.005	0.01	0.012
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	17	0.19	0.212	0.48	0.06	0.013	0.115	0.084	0.11	0.3	0.4
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	17	0.4	0.447	0.7	0.2	0.035	0.187	0.2	0.25	0.65	0.7
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	17	0.09	0.095	0.16	0.04	0.002	0.04	0.048	0.055	0.13	0.16
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	17	0.04	0.057	0.11	0.02	0.001	0.031	0.02	0.03	0.085	0.102
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	17	0.03	0.052	0.12	0.01	0.001	0.036	0.01	0.025	0.08	0.112
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	17	3.8	3.982	7.7	2.2	1.72	1.312	2.6	3.05	4.55	6.1
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	17	7.3	6.841	9.3	2.3	3.305	1.818	3.66	5.8	8.05	8.98

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	44	16.65	17.784	31.9	4.7	71.609	8.462	6.7	9.725	25.95	29.2
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	11	5.7	6.155	12.2	0.6	8.541	2.922	1.4	4.7	7.6	11.48
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	10	1.4	1.38	2.2	0.6	0.244	0.494	0.62	1.025	1.7	2.18
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	44	220.5	217.136	367.	17.	5301.19	72.809	127.5	143.75	275.75	294.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	11	212.	208.909	308.	114.	5448.491	73.814	115.8	129.	274.	307.
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	39	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

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### Annual Analysis for 1994 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	44	9.6	9.561	13.3	6.3	3.87	1.967	6.8	7.825	11.075	12.45
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	11	1.5	1.691	3.6	0.5	1.055	1.027	0.5	1.	2.	3.56
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	4	13.5	13.25	16.	10.	10.25	3.202	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	12	7.91	7.954	9.09	7.42	0.216	0.465	7.462	7.592	8.15	8.889
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	12	7.901	7.796	9.09	7.42	0.244	0.494	7.462	7.592	8.15	8.889
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	12	0.013	0.016	0.038	0.001	0.	0.011	0.002	0.007	0.026	0.035
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	10	7.2	7.22	7.6	6.9	0.037	0.193	6.92	7.1	7.325	7.58
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	10	7.2	7.183	7.6	6.9	0.039	0.197	6.92	7.1	7.325	7.58
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	10	0.063	0.066	0.126	0.025	0.001	0.028	0.027	0.048	0.079	0.121
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	9	57.	52.333	68.	33.	132.	11.489	33.	43.	61.5	68.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	8.	8.5	24.	1.5	38.75	6.225	1.8	4.	10.	22.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	11 ##	1.5	2.909	7.	1.5	5.891	2.427	1.5	1.5	6.	7.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	5.	5.864	17.	1.5	17.105	4.136	1.8	3.	7.	15.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.144	0.175	0.369	0.002	0.019	0.137	0.008	0.034	0.313	0.367
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.004	0.006	0.019	0.001	0.	0.006	0.001	0.003	0.008	0.018
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.13	0.161	0.35	0.002	0.013	0.116	0.012	0.08	0.25	0.35
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	5	0.06	0.064	0.11	0.04	0.001	0.029	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	11	0.028	0.037	0.1	0.002	0.001	0.027	0.004	0.025	0.055	0.093
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	11	3.5	3.5	4.5	2.1	0.444	0.666	2.28	3.1	4.1	4.46
00900	HARDNESS, TOTAL (MG/L AS CACO3)	02/17/94-12/15/98	9	66.	65.111	96.	42.	310.111	17.61	42.	50.	79.	96.
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	4	23.	23.5	37.	11.	123.667	11.121	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	09/08/94-12/15/98	4	30.5	29.75	37.	21.	43.583	6.602	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	11	7.4	6.827	8.3	4.4	1.522	1.234	4.58	5.5	7.6	8.18
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	02/17/94-12/15/98	7	110.	446.	1600.	9.	342013.	584.819	**	**	**	**
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	02/17/94-12/15/98	7	2.041	2.19	3.204	0.954	0.618	0.786	**	**	**	**
	GEOMETRIC MEAN =				155.029								

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### Annual Analysis for 1995 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	44	16.35	16.082	31.	2.8	90.222	9.499	3.95	6.4	24.65	30.25
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	12	9.	9.592	17.6	4.3	20.617	4.541	4.33	5.725	13.85	17.15
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	12	1.25	1.25	1.9	0.7	0.188	0.434	0.7	0.825	1.675	1.87
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	44	166.	189.205	343.	142.	3033.422	55.077	147.	155.	196.75	293.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	12	162.	189.333	377.	142.	5268.424	72.584	144.4	153.	177.75	354.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	44	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	44	9.3	9.993	13.6	6.8	5.161	2.272	7.05	7.925	12.3	13.3
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	12	1.	0.942	2.4	0.5	0.295	0.543	0.5	0.5	1.15	2.04
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	12	11.5	10.75	27.	2.5	40.705	6.38	2.5	6.5	12.	23.1
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	13	7.64	7.622	8.33	7.31	0.109	0.33	7.318	7.355	7.715	8.286
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	13	7.64	7.534	8.33	7.31	0.117	0.342	7.318	7.355	7.715	8.286
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	13	0.023	0.029	0.049	0.005	0.	0.015	0.005	0.019	0.044	0.048
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	12	7.2	7.358	8.	6.8	0.135	0.368	6.86	7.125	7.675	7.97
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	12	7.2	7.235	8.	6.8	0.152	0.39	6.86	7.125	7.675	7.97
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	12	0.063	0.058	0.158	0.01	0.002	0.042	0.011	0.021	0.075	0.141
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	12	44.	49.25	78.	40.	168.932	12.997	40.3	41.	50.75	76.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	8.5	11.667	50.	4.	154.061	12.412	4.	5.5	11.5	38.9
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	12 ##	1.5	2.333	10.	1.5	6.015	2.453	1.5	1.5	1.5	7.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	7.	9.333	40.	3.	99.879	9.994	3.	4.25	9.75	31.3
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	12	0.214	0.191	0.398	0.025	0.01	0.101	0.038	0.1	0.249	0.355
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	12	0.005	0.006	0.012	0.002	0.	0.003	0.002	0.004	0.008	0.011
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	12	0.24	0.223	0.4	0.04	0.014	0.12	0.043	0.11	0.32	0.397
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	11	0.08	0.083	0.14	0.03	0.001	0.031	0.034	0.06	0.11	0.134
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	12	0.06	0.065	0.128	0.028	0.001	0.028	0.032	0.044	0.085	0.116

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### Annual Analysis for 1995 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	12	5.05	4.942	7.2	2.8	2.064	1.437	2.92	3.6	6.25	7.05
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/94-12/15/98	12	58.	63.5	110.	40.	365.364	19.114	42.1	53.25	65.75	104.
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	12	10.	12.417	33.	6.	76.992	8.775	6.	6.5	11.75	31.5
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	09/08/94-12/15/98	12	14.5	17.5	43.	12.	76.636	8.754	12.	13.	16.75	37.6
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	12	8.6	7.9	10.7	3.8	5.233	2.288	4.01	5.675	9.775	10.55
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	12	240.	1601.167	16000.	9.	20638880.879	4543.004	12.3	68.75	607.5	11485.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	12	2.379	2.35	4.204	0.954	0.701	0.837	1.058	1.776	2.763	3.836
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	223.795								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	10	0.027	0.114	0.873	0.016	0.071	0.267	0.017	0.022	0.045	0.791
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	9	0.47	0.545	1.062	0.038	0.109	0.33	0.038	0.288	0.81	1.062
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	10	0.064	0.065	0.148	0.018	0.002	0.042	0.018	0.026	0.094	0.144
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	10	0.596	0.543	0.715	0.066	0.036	0.19	0.103	0.478	0.659	0.712
49572	PHOSPHOROUS TOTAL, FIELD FILTRED, DISSLVD,WTR MG/L	03/23/95-12/15/98	10	0.08	0.138	0.605	0.055	0.028	0.166	0.056	0.067	0.115	0.558

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### Annual Analysis for 1996 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	48	16.75	15.233	28.1	4.	81.729	9.04	4.36	5.2	24.975	27.52
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	12	11.65	28.983	213.	4.9	3414.425	58.433	5.05	6.425	17.85	158.7
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	12	0.95	0.983	1.9	0.1	0.249	0.499	0.22	0.7	1.45	1.78
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	47	132.	156.234	275.	110.	1825.227	42.723	116.8	130.	167.	214.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	12	148.5	154.833	261.	107.	1899.424	43.582	108.5	122.	178.25	243.3
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	45	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	48	9.75	10.223	13.3	7.	5.334	2.31	7.3	8.	12.775	13.3
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	12##	0.75	0.917	2.	0.5	0.311	0.557	0.5	0.5	1.	2.
00340	COD, .25N K <sub>2</sub> CR <sub>2</sub> O <sub>7</sub> MG/L	05/19/80-12/15/98	12	11.5	11.458	23.	2.5	32.521	5.703	3.25	8.	14.5	21.8
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	13	7.46	7.557	8.44	7.19	0.103	0.321	7.242	7.35	7.73	8.176
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	13	7.46	7.479	8.44	7.19	0.109	0.331	7.242	7.35	7.73	8.176
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	13	0.035	0.033	0.065	0.004	0.	0.016	0.009	0.019	0.045	0.058
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	12	7.45	7.5	8.	7.1	0.091	0.302	7.1	7.225	7.8	7.94
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	12	7.447	7.411	8.	7.1	0.1	0.316	7.1	7.225	7.8	7.94
00403	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/20/69-12/15/98	12	0.036	0.039	0.079	0.01	0.001	0.025	0.012	0.016	0.06	0.079
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	12	42.	44.5	65.	33.	86.455	9.298	33.3	38.	52.	61.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	10.	30.417	238.	3.	4331.72	65.816	3.3	6.	23.	174.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	12##	1.5	4.333	22.	1.5	37.152	6.095	1.5	1.5	4.	18.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	12	7.5	26.417	216.	3.	3596.447	59.97	3.3	5.	15.	157.8
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	12	0.045	0.055	0.14	0.013	0.002	0.043	0.014	0.021	0.08	0.137
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	12	0.003	0.004	0.013	0.001	0.	0.003	0.001	0.002	0.006	0.011
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	12	0.36	0.32	0.46	0.04	0.015	0.122	0.085	0.24	0.408	0.451
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	1	0.04	0.04	0.04	0.04	0.04	0.	0.	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	12	0.033	0.032	0.048	0.009	0.	0.012	0.012	0.024	0.042	0.048
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	8	3.9	4.05	6.2	2.5	1.369	1.17	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/94-12/15/98	12	56.	56.25	86.	26.	273.477	16.537	30.5	49.25	59.	85.7
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	12	7.5	7.792	17.	2.5	21.475	4.634	2.5	3.125	10.5	16.1
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	09/08/94-12/15/98	12	12.	13.833	29.	8.	36.515	6.043	8.3	9.25	17.5	26.3
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	12	7.9	7.6	10.2	2.5	4.058	2.014	3.49	6.825	8.9	9.87
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	12	140.	1271.667	9200.	9.	7211979.152	2685.513	19.8	50.75	1022.5	7490.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	12	2.136	2.344	3.964	0.954	0.741	0.861	1.164	1.698	2.982	3.838
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	220.853								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	12	0.026	0.045	0.254	0.012	0.004	0.066	0.014	0.018	0.041	0.19
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	12	0.624	1.093	5.606	0.08	2.192	1.481	0.134	0.301	1.181	4.35
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	11	0.113	0.157	0.601	0.029	0.026	0.16	0.033	0.066	0.201	0.528
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	12	0.53	0.568	1.084	0.33	0.035	0.188	0.349	0.484	0.623	0.962
49572	PHOSPHOROUS TOTAL, FIELD FILTRED, DISSLVD,WTR MG/L	03/23/95-12/15/98	12	0.043	0.039	0.057	0.017	0.	0.012	0.018	0.029	0.047	0.055

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	27	14.	15.556	30.9	5.7	82.06	9.059	5.7	6.1	22.	30.3
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	11	6.	7.264	20.	3.	21.677	4.656	3.22	4.4	8.3	17.82
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	10	1.6	1.51	2.6	0.7	0.263	0.513	0.73	1.075	1.7	2.51
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	26	178.5	187.462	307.	127.	2612.098	51.109	127.7	134.	222.75	257.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	11	180.	205.182	284.	132.	2901.564	53.866	133.8	172.	254.	283.4
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	23	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	26	9.9	10.246	13.7	6.6	5.521	2.35	7.17	7.875	12.3	13.7
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	11 ##	1.	0.818	1.	0.5	0.064	0.252	0.5	0.5	1.	1.
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	11	5.	6.227	13.	2.5	18.068	4.251	2.5	2.5	10.	13.
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	11	7.7	7.865	8.61	7.28	0.185	0.43	7.336	7.63	8.31	8.598
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	11	7.7	7.716	8.61	7.28	0.21	0.458	7.336	7.63	8.31	8.598
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	11	0.02	0.019	0.052	0.002	0.	0.014	0.003	0.005	0.023	0.047
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	11	7.5	7.536	8.	7.2	0.065	0.254	7.22	7.3	7.7	7.98
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	11	7.5	7.476	8.	7.2	0.069	0.262	7.22	7.3	7.7	7.98
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	11	0.032	0.033	0.063	0.01	0.	0.017	0.011	0.02	0.05	0.061
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	11	56.	53.909	72.	27.	177.291	13.315	28.8	46.	63.	71.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	8.	8.909	17.	3.	18.091	4.253	3.4	5.	12.	16.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	11 ##	1.5	1.636	3.	1.5	0.205	0.452	1.5	1.5	1.5	2.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	6.	7.045	15.	1.5	15.623	3.953	2.	4.	10.	14.2
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	10	0.033	0.037	0.08	0.002	0.001	0.031	0.002	0.007	0.065	0.079
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.003	0.003	0.004	0.001	0.	0.001	0.001	0.002	0.003	0.004
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.25	0.289	0.51	0.08	0.015	0.123	0.094	0.22	0.37	0.488
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	11	0.03	0.031	0.069	0.014	0.	0.015	0.015	0.021	0.039	0.063
00900	HARDNESS, TOTAL (MG/L AS CACO3)	02/17/94-12/15/98	11	62.	62.273	76.	38.	101.818	10.09	41.6	58.	70.	75.
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	11	11.	12.818	24.	7.	31.164	5.582	7.	8.	17.	23.
00945	SULFATE, TOTAL (MG/L AS SO4)	09/08/94-12/15/98	11	19.	19.727	31.	10.	65.818	8.113	10.	13.	29.	31.
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	11	6.	6.127	9.7	3.1	5.01	2.238	3.22	4.1	8.7	9.54
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	11	170.	215.545	700.	20.	38511.473	196.243	29.6	93.	220.	652.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	11	2.23	2.181	2.845	1.301	0.165	0.407	1.407	1.968	2.342	2.809
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	11	151.611									
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	11	0.008	0.008	0.018	0.003	0.	0.005	0.003	0.005	0.01	0.017
49569	CARBON PARICULATE, FIELD FILTERED, SUSP.,WTR MG/L	03/23/95-12/15/98	11	0.43	0.489	1.167	0.16	0.065	0.254	0.194	0.335	0.565	1.047
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	11	0.05	0.057	0.156	0.024	0.001	0.036	0.025	0.03	0.066	0.14
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	11	0.513	0.534	0.894	0.227	0.033	0.181	0.264	0.427	0.654	0.865
49572	PHOSPHOROUS TOTAL, FIELD FILTED, DISSLVD,WTR MG/L	03/23/95-12/15/98	13	0.052	0.047	0.094	0.018	0.	0.019	0.021	0.034	0.055	0.08

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### Annual Analysis for 1998 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	42	19.2	18.274	31.4	5.5	81.095	9.005	5.98	8.8	27.725	28.59
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	11	5.	9.964	33.	2.3	126.727	11.257	2.38	3.7	9.4	32.72
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	10	1.2	1.23	2.7	0.3	0.427	0.653	0.33	0.825	1.475	2.6
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	42	231.	229.286	377.	101.	8923.429	94.464	106.6	120.75	316.	368.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	11	254.	244.273	523.	92.	16253.018	127.487	96.8	129.	332.	489.2
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	6	0.2	0.133	0.2	0.	0.011	0.103	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	42	8.75	9.533	13.	6.6	4.553	2.134	6.9	7.475	10.9	12.82
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	11 ##	1.	1.091	2.	1.	0.091	0.302	1.	1.	1.	1.8
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	11	8.	9.636	19.	5.	23.455	4.843	5.2	7.	10.	19.
00400	PH (STANDARD UNITS)	07/22/68-12/15/98	11	7.86	7.802	8.26	7.28	0.07	0.265	7.322	7.64	7.91	8.218
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	11	7.86	7.724	8.26	7.28	0.077	0.278	7.322	7.64	7.91	8.218
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	11	0.014	0.019	0.052	0.005	0.	0.013	0.006	0.012	0.023	0.048
00403	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	11	7.1	7.1	7.6	6.6	0.122	0.349	6.62	6.7	7.4	7.58
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	11	7.1	6.979	7.6	6.6	0.138	0.372	6.62	6.7	7.4	7.58
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	11	0.079	0.105	0.251	0.025	0.006	0.079	0.026	0.04	0.2	0.241
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	11	61.	57.091	80.	31.	236.691	15.385	32.4	44.	70.	78.6

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### Annual Analysis for 1998 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	9.	16.682	105.	1.5	878.914	29.646	1.8	4.	11.	87.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	11 ##	1.5	2.864	15.	1.5	16.405	4.05	1.5	1.5	1.5	12.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	11	7.	13.727	90.	1.5	655.568	25.604	1.5	3.	9.	75.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	9	0.018	0.023	0.051	0.002	0.	0.017	0.002	0.009	0.038	0.051
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.003	0.003	0.005	0.001	0.	0.001	0.001	0.002	0.004	0.005
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	11	0.28	0.328	0.62	0.19	0.017	0.129	0.192	0.22	0.41	0.588
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	11	0.026	0.032	0.082	0.016	0.	0.018	0.016	0.021	0.035	0.074
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/94-12/15/98	11	71.	69.273	134.	34.	812.218	28.499	35.6	44.	83.	124.8
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	11	14.	13.227	30.	2.5	89.818	9.477	2.5	2.5	21.	28.6
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	09/08/94-12/15/98	11	27.	30.091	62.	9.	349.291	18.689	9.2	10.	45.	60.8
00955	SILICA, DISSOLVED (MG/L AS SI02)	02/13/90-12/15/98	11	7.1	6.745	9.1	3.8	3.833	1.958	3.8	4.7	8.6	9.02
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	11	93.	806.636	3500.	9.	1853177.855	1361.315	10.8	20.	950.	3500.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	02/17/94-12/15/98	11	1.968	2.183	3.544	0.954	0.816	0.903	1.014	1.301	2.978	3.544
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	152.336								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	03/23/95-12/15/98	11	0.019	0.027	0.11	0.01	0.001	0.028	0.01	0.014	0.023	0.095
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	03/23/95-12/15/98	11	0.454	0.786	3.312	0.192	0.756	0.87	0.206	0.425	0.798	2.848
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	03/23/95-12/15/98	11	0.055	0.082	0.301	0.026	0.006	0.078	0.026	0.035	0.103	0.262
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	03/23/95-12/15/98	11	0.58	0.522	0.707	0.32	0.019	0.138	0.328	0.36	0.628	0.696
49572	PHOSPHOROUS TOTAL, FIELD FILTRATED, DISSLVD,WTR MG/L	03/23/95-12/15/98	11	0.036	0.041	0.1	0.018	0.	0.022	0.019	0.03	0.043	0.091

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	194	27.25	26.364	31.9	15.9	14.162	3.763	20.6	24.075	29.2	30.6
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	18	5.	6.033	17.6	0.5	16.664	4.082	1.85	3.45	7.775	13.73
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	50	1.3	1.231	2.9	0.185	0.381	0.617	0.236	0.775	1.6	1.99
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	161	265.	260.304	408.	103.	4283.788	65.451	147.	221.	306.	345.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	21	254.	254.905	377.	150.	3505.79	59.21	160.6	207.	302.5	329.8
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	142	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	154	7.3	7.466	9.6	5.1	0.773	0.879	6.5	6.8	8.	8.8
00300	OXYGEN, DISSOLVED MG/L	07/22/68-09/27/83	40	6.9	6.293	9.2	1.	3.801	1.95	2.82	5.7	7.55	7.8
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	31	1.	3.952	74.	0.5	171.131	13.082	0.5	1.	2.	4.02
00340	COD, 25N K2CR2O7 MG/L	05/19/80-12/15/98	20	11.	10.6	25.	2.5	20.963	4.579	2.95	8.25	12.	13.9
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	84	7.6	7.664	8.61	6.7	0.156	0.395	7.2	7.5	7.883	8.28
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	84	7.6	7.499	8.61	6.7	0.184	0.428	7.2	7.5	7.882	8.28
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-12/15/98	84	0.025	0.032	0.2	0.002	0.001	0.032	0.005	0.013	0.032	0.063
00403p	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	15	7.6	7.513	8.	6.8	0.147	0.383	6.92	7.1	7.9	8.
00403p	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	15	7.6	7.351	8.	6.8	0.175	0.418	6.92	7.1	7.9	8.
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-12/15/98	15	0.025	0.045	0.158	0.01	0.002	0.042	0.01	0.013	0.079	0.123
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-12/15/98	18	62.	59.789	79.	0.2	309.132	17.582	42.32	52.5	71.5	78.1
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	10	140.5	169.3	368.	89.	6559.567	80.991	92.2	121.75	206.5	354.7
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	10	30.	34.1	53.	16.	183.878	13.56	16.4	23.	49.75	52.9
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	10	106.5	135.2	352.	69.	6881.289	82.954	71.	89.75	155.25	335.4
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	72	7.	11.729	81.	0.5	207.105	14.391	2.5	4.	11.75	31.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	72	2.	3.826	32.	0.	26.135	5.112	1.	1.5	4.	9.7
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	68	5.	8.434	72.	0.5	132.134	11.495	1.5	3.	8.	21.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	43	0.242	0.256	0.94	0.007	0.04	0.2	0.016	0.092	0.37	0.53
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	35	0.2	0.301	1.099	0.03	0.06	0.246	0.096	0.1	0.4	0.72
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	46	0.01	0.032	0.15	0.001	0.002	0.043	0.003	0.005	0.053	0.11
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	36	0.01	0.016	0.06	0.	0.	0.015	0.004	0.005	0.02	0.05
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	46	0.2	0.22	0.51	0.05	0.012	0.108	0.094	0.15	0.28	0.41
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	34	0.365	0.506	1.549	0.005	0.137	0.37	0.085	0.3	0.692	1.045
00625	NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	66	0.6	0.696	2.	0.1	0.153	0.391	0.3	0.4	0.818	1.3
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-12/15/98	12	0.3	0.383	1.	0.2	0.049	0.221	0.2	0.225	0.475	0.85
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	38	0.12	0.169	0.5	0.05	0.014	0.118	0.069	0.1	0.2	0.364
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	36	0.08	0.108	0.41	0.02	0.009	0.093	0.04	0.06	0.1	0.277
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	53	0.06	0.1	0.4	0.01	0.009	0.096	0.025	0.04	0.124	0.276
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	54	4.2	5.867	57.1	2.2	54.017	7.35	3.25	3.575	5.8	8.95
00940p	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	31	13.	14.645	37.	4.	68.703	8.289	5.	8.	20.	27.2
00955	SILICA, DISSOLVED (MG/L AS SiO2)	02/13/90-12/15/98	40	7.15	6.98	10.2	3.8	2.763	1.662	4.6	5.8	8.3	9.29
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	05/06/71-12/02/93	35	500.	1774.	8000.	50.	6345407.059	2519.009	50.	50.	2600.	6800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-12/02/93	35	2.699	2.693	3.903	1.699	0.628	0.792	1.699	1.699	3.415	3.828
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C				493.569								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	28	0.1	0.139	0.35	0.05	0.007	0.085	0.05	0.063	0.2	0.3
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	28	0.095	0.118	0.35	0.01	0.008	0.087	0.038	0.05	0.145	0.264

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	184	7.85	9.265	19.5	2.6	20.231	4.498	4.7	5.7	13.9	15.95
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	26	9.65	20.192	213.	2.3	1643.528	40.54	3.42	5.375	17.075	33.5
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	48	1.	1.217	3.	0.1	0.582	0.763	0.38	0.6	1.85	2.4
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	180	170.	199.994	397.	12.	6431.693	80.198	120.	133.	275.75	306.1
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	32	161.	187.594	523.	107.	7427.475	86.183	109.8	133.	235.75	281.
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	154	0.	0.005	0.2	0.	0.001	0.032	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	176	12.	11.573	14.3	8.3	2.479	1.574	9.3	10.425	12.9	13.46
00300	OXYGEN, DISSOLVED MG/L	07/22/68-09/27/83	8	10.55	10.238	12.8	6.	4.454	2.11	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	29	1.	1.224	2.4	0.5	0.352	0.593	0.5	1.	2.	2.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	27	10.	11.63	27.	2.5	51.742	7.193	2.5	6.	16.	23.6
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	58	7.43	7.485	8.42	7.	0.092	0.303	7.127	7.28	7.655	7.883
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	58	7.43	7.399	8.42	7.	0.099	0.315	7.127	7.28	7.655	7.883
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	58	0.037	0.04	0.1	0.004	0.001	0.023	0.013	0.022	0.052	0.075
00403p	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	22	7.25	7.255	7.6	6.8	0.04	0.199	6.93	7.175	7.4	7.5
00403p	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	22	7.247	7.208	7.6	6.8	0.042	0.205	6.93	7.175	7.4	7.5
00403p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/20/69-12/15/98	22	0.057	0.062	0.158	0.025	0.001	0.032	0.032	0.04	0.067	0.118
00410p	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	22	45.	49.955	80.	33.	192.331	13.868	33.9	39.5	61.25	71.4
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	7	123.	132.429	211.	95.	1437.952	37.92	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	7	34.	34.714	48.	26.	54.905	7.41	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	7	94.	97.714	173.	47.	1595.238	39.94	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	57	8.	23.509	261.	0.5	2520.54	50.205	1.9	4.	18.	41.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	57	1.5	3.842	30.	0.	30.35	5.509	1.	1.5	4.	8.4
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	57	6.	19.851	231.	0.	2031.214	45.069	0.9	2.5	15.	37.2
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	49	0.09	0.178	0.83	0.005	0.04	0.199	0.025	0.048	0.237	0.46
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	9	0.1	0.18	0.4	0.05	0.019	0.137	0.05	0.06	0.325	0.4
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	49	0.005	0.01	0.08	0.001	0.	0.015	0.002	0.004	0.01	0.02
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	9	0.01	0.012	0.03	0.005	0.	0.008	0.005	0.005	0.015	0.03
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	49	0.33	0.301	0.62	0.02	0.014	0.119	0.13	0.205	0.385	0.42
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	9	0.44	0.429	0.84	0.08	0.063	0.251	0.08	0.22	0.65	0.84
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	35	0.5	0.546	1.1	0.1	0.069	0.263	0.2	0.4	0.7	0.94
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-12/15/98	12	0.4	0.383	0.6	0.2	0.012	0.111	0.2	0.325	0.4	0.57
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	32	0.13	0.173	0.55	0.03	0.016	0.126	0.05	0.07	0.23	0.387
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	36	0.05	0.106	0.6	0.02	0.019	0.138	0.03	0.04	0.108	0.305
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	53	0.04	0.079	0.51	0.01	0.009	0.096	0.02	0.03	0.076	0.23
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	45	3.9	4.396	10.	1.2	3.554	1.885	2.36	3.1	5.1	7.4
00940p	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	25	10.	11.86	30.	2.5	46.99	6.855	5.6	7.	16.5	22.8
00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	02/13/90-12/15/98	42	7.4	7.219	10.7	3.2	3.497	1.87	4.19	5.95	8.825	9.34
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-12/02/93	10	250.	1210.	7700.	0.	5538222.222	2353.343	5.	50.	1450.	7090.
31616	LOG FECAL, COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-12/02/93	10	2.301	1.704	3.886	-6.046	7.937	2.817	-5.271	1.699	3.161	3.818
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			50.537								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	5	0.1	0.1	0.2	0.05	0.004	0.061	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	5	0.04	0.094	0.2	0.03	0.006	0.08	**	**	**	**

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### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-12/15/98	198	19.4	18.998	30.2	7.1	38.879	6.235	10.5	13.675	24.5	26.9
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	26	6.75	8.158	33.	0.6	42.401	6.512	2.83	4.25	9.45	16.2
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-12/15/98	47	1.3	1.294	2.2	0.3	0.194	0.441	0.7	0.9	1.6	1.9
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-12/15/98	175	151.	154.469	226.	17.	979.906	31.303	120.	134.	171.	203.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	12/20/88-12/15/98	35	141.	147.2	252.	92.	1061.341	32.578	108.8	129.	162.	191.2
00096	SALINITY AT 25 DEGREES C (MG/ML)	06/29/88-11/18/98	154	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/29/88-12/15/98	170	8.9	9.209	13.	6.3	2.611	1.616	7.2	7.8	10.6	11.2
00300	OXYGEN, DISSOLVED MG/L	07/22/68-09/27/83	29	8.	7.628	10.4	1.3	3.752	1.937	4.7	7.15	8.9	9.6
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-12/15/98	38	1.	1.724	8.6	0.5	2.58	1.606	0.5	1.	2.	3.63
00340	COD, .25N K2CR2O7 MG/L	05/19/80-12/15/98	25	8.	8.72	19.	2.5	18.523	4.304	3.4	6.	12.	14.8
00400p	PH (STANDARD UNITS)	07/22/68-12/15/98	79	7.46	7.581	9.09	6.7	0.232	0.482	7.1	7.3	7.78	8.44
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-12/15/98	79	7.46	7.398	9.09	6.7	0.266	0.516	7.1	7.3	7.78	8.44
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-12/15/98	79	0.035	0.04	0.2	0.001	0.001	0.034	0.004	0.017	0.05	0.079
00403p	PH, LAB, STANDARD UNITS SU	03/20/69-12/15/98	27	7.4	7.278	8.	6.	0.186	0.432	6.68	7.1	7.6	7.8
00403p	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-12/15/98	27	7.4	6.998	8.	6.	0.268	0.517	6.68	7.1	7.6	7.8
00403p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/20/69-12/15/98	27	0.04	0.1	1.	0.01	0.036	0.19	0.016	0.025	0.079	0.21
00410p	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	03/20/69-12/15/98	27	43.	42.333	62.	8.	121.615	11.028	29.4	38.	51.	56.2
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	19	114.	113.368	168.	57.	662.023	25.73	86.	95.	132.	155.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

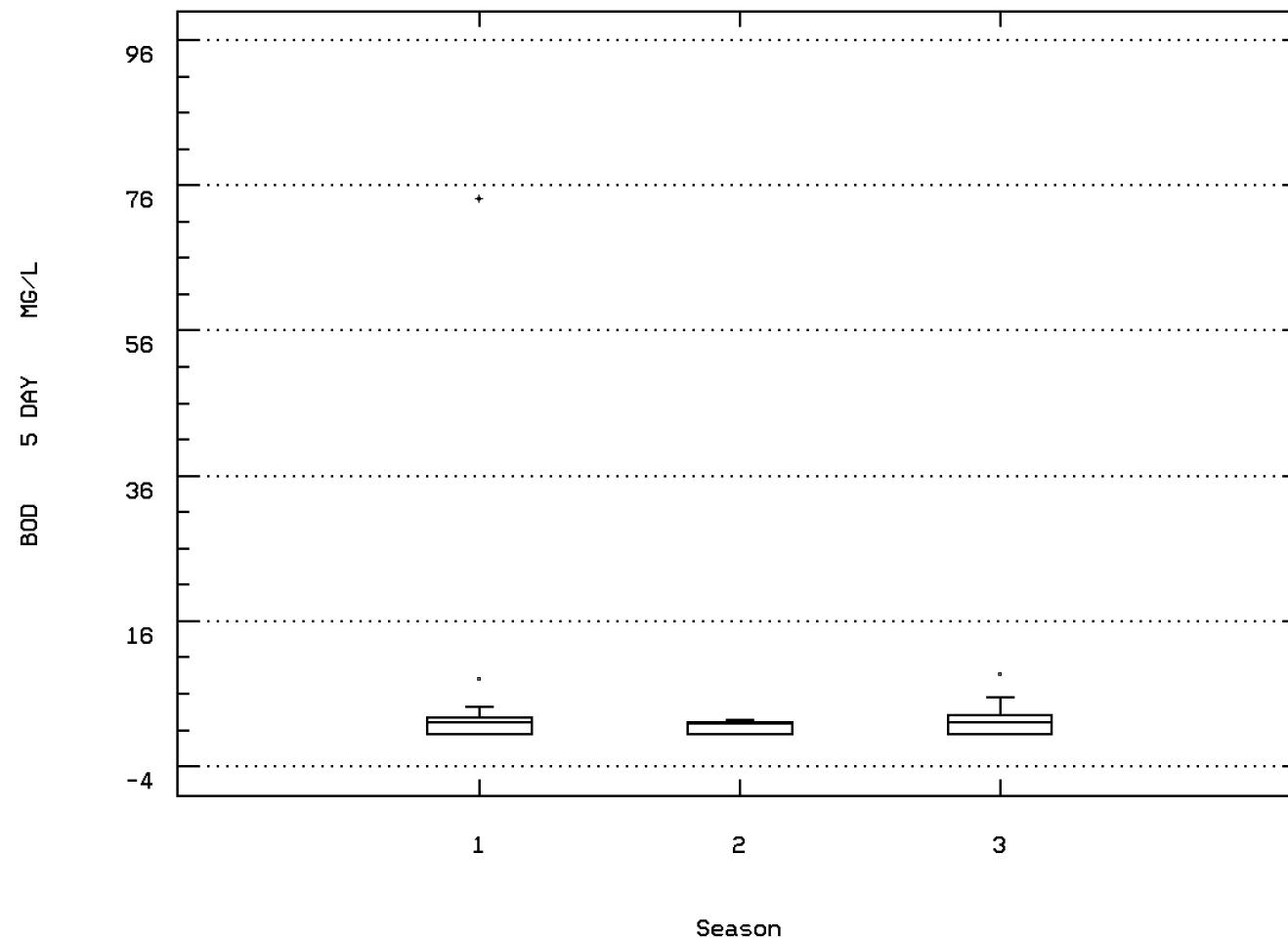
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	19	38.	41.579	88.	11.	416.924	20.419	14.	29.	57.	79.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	19	78.	71.789	121.	32.	494.62	22.24	38.	57.	89.	96.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-12/15/98	73	9.	13.26	105.	0.5	278.23	16.68	4.	5.5	14.5	23.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-12/15/98	73	2.	3.288	16.	0.	11.236	3.352	1.	1.5	4.	8.2
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-12/15/98	73	6.	9.952	90.	0.	205.494	14.335	1.7	4.	11.	17.2
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	48	0.083	0.109	0.398	0.002	0.008	0.091	0.013	0.04	0.158	0.25
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/27/83	27	0.18	0.204	0.8	0.05	0.029	0.171	0.05	0.1	0.3	0.436
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	49	0.005	0.006	0.04	0.001	0.	0.006	0.002	0.003	0.007	0.01
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	27 ##	0.005	0.01	0.03	0.005	0.	0.007	0.005	0.005	0.01	0.02
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	06/29/88-12/15/98	49	0.27	0.23	0.44	0.002	0.014	0.12	0.04	0.11	0.325	0.36
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/27/83	27	0.33	0.293	0.68	0.01	0.042	0.204	0.045	0.09	0.45	0.58
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-12/02/93	56	0.4	0.409	1.699	0.1	0.06	0.244	0.2	0.3	0.4	0.7
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-12/15/98	12	0.25	0.244	0.4	0.04	0.012	0.11	0.055	0.2	0.3	0.4
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-12/14/95	34	0.07	0.089	0.22	0.04	0.002	0.049	0.05	0.05	0.1	0.2
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	06/29/88-01/29/96	33	0.04	0.05	0.15	0.01	0.001	0.028	0.024	0.03	0.06	0.08
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-12/15/98	54	0.031	0.041	0.16	0.002	0.001	0.031	0.011	0.021	0.048	0.08
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/01/75-08/20/96	54	3.5	3.767	10.8	1.4	2.94	1.715	2.05	2.575	4.925	6
00940p	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-12/15/98	31	7.	7.242	20.	2.5	14.915	3.862	2.5	4.	9.	11.
00955	SILICA, DISSOLVED (MG/AS SiO2)	02/13/90-12/15/98	46	7.5	6.502	10.2	2.3	4.255	2.063	2.78	5.275	7.825	8.63
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-12/02/93	23	300.	4426.087	80000.	50.	276393152.174	16625.076	50.	50.	700.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-12/02/93	23	2.477	2.506	4.903	1.699	0.684	0.827	1.699	1.699	2.845	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	320.657								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	04/21/70-04/24/79	22 ##	0.05	0.079	0.2	0.05	0.003	0.051	0.05	0.05	0.1	0.194
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	22	0.05	0.065	0.14	0.03	0.001	0.032	0.03	0.05	0.085	0.128

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0069 Parameter Code: 00310

BOD, 5 DAY, 20 DEG C

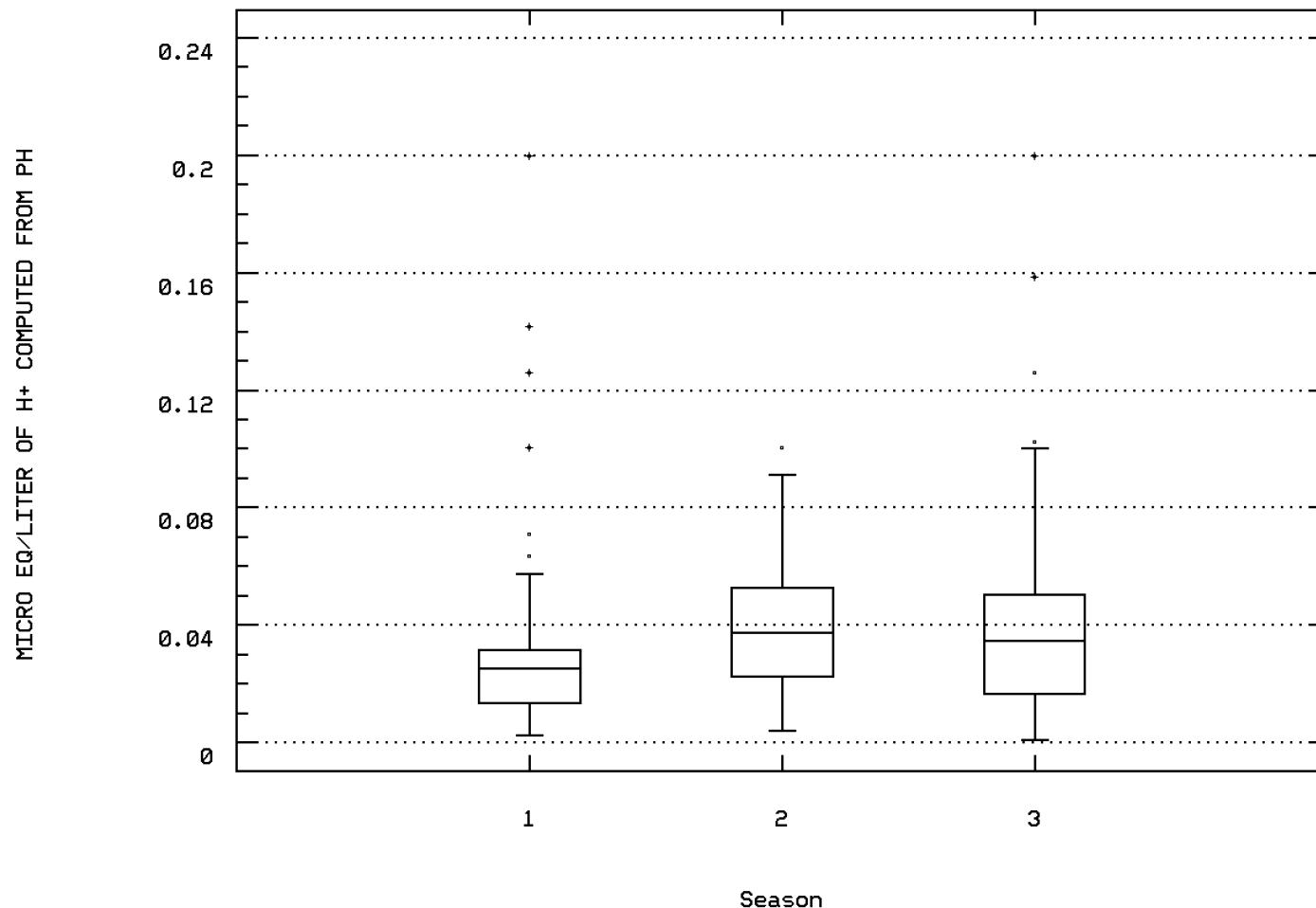


BUOY 166

500

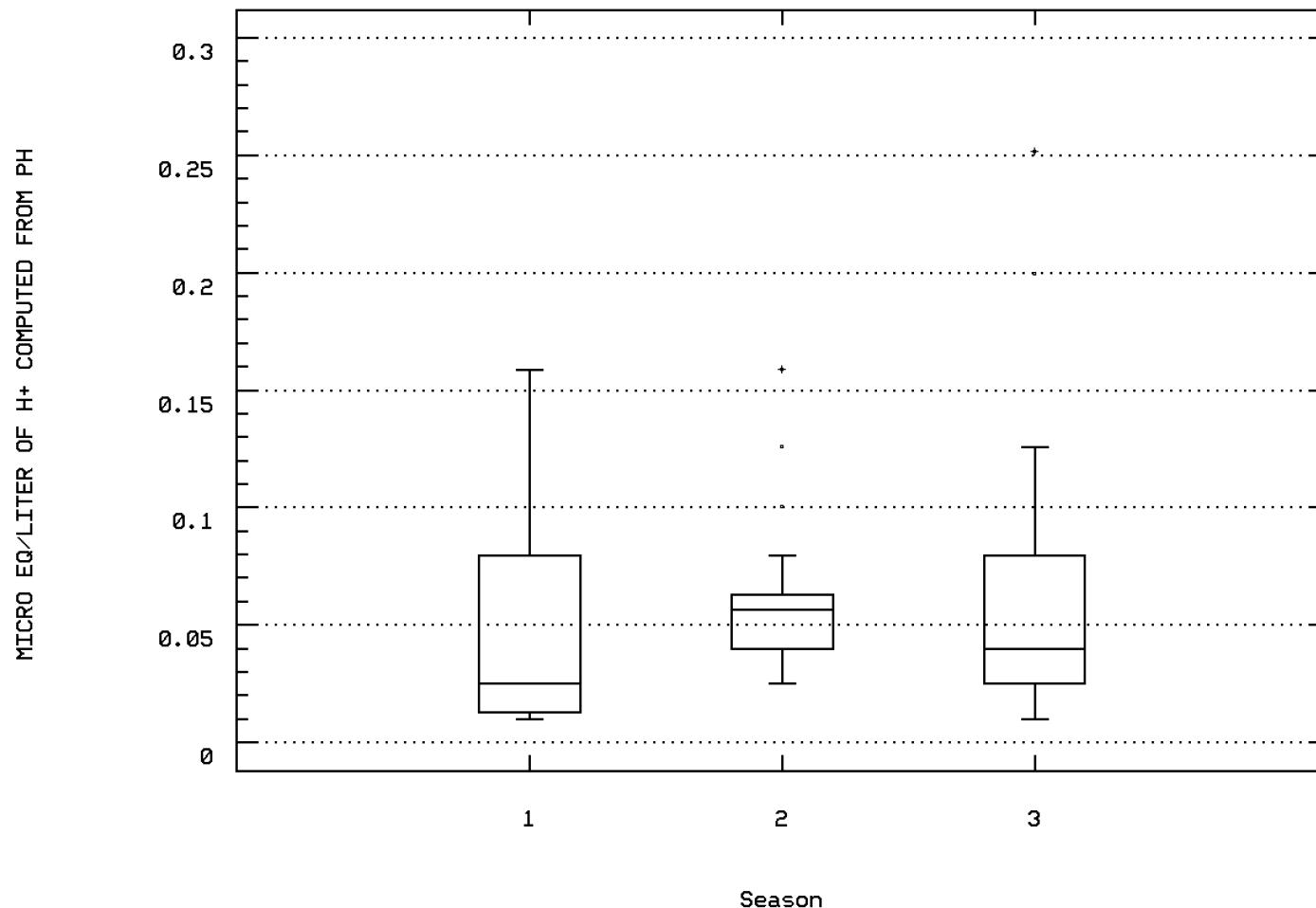
Station: RICH0069 Parameter Code: 00400

MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



Station: RICH0069 Parameter Code: 00403

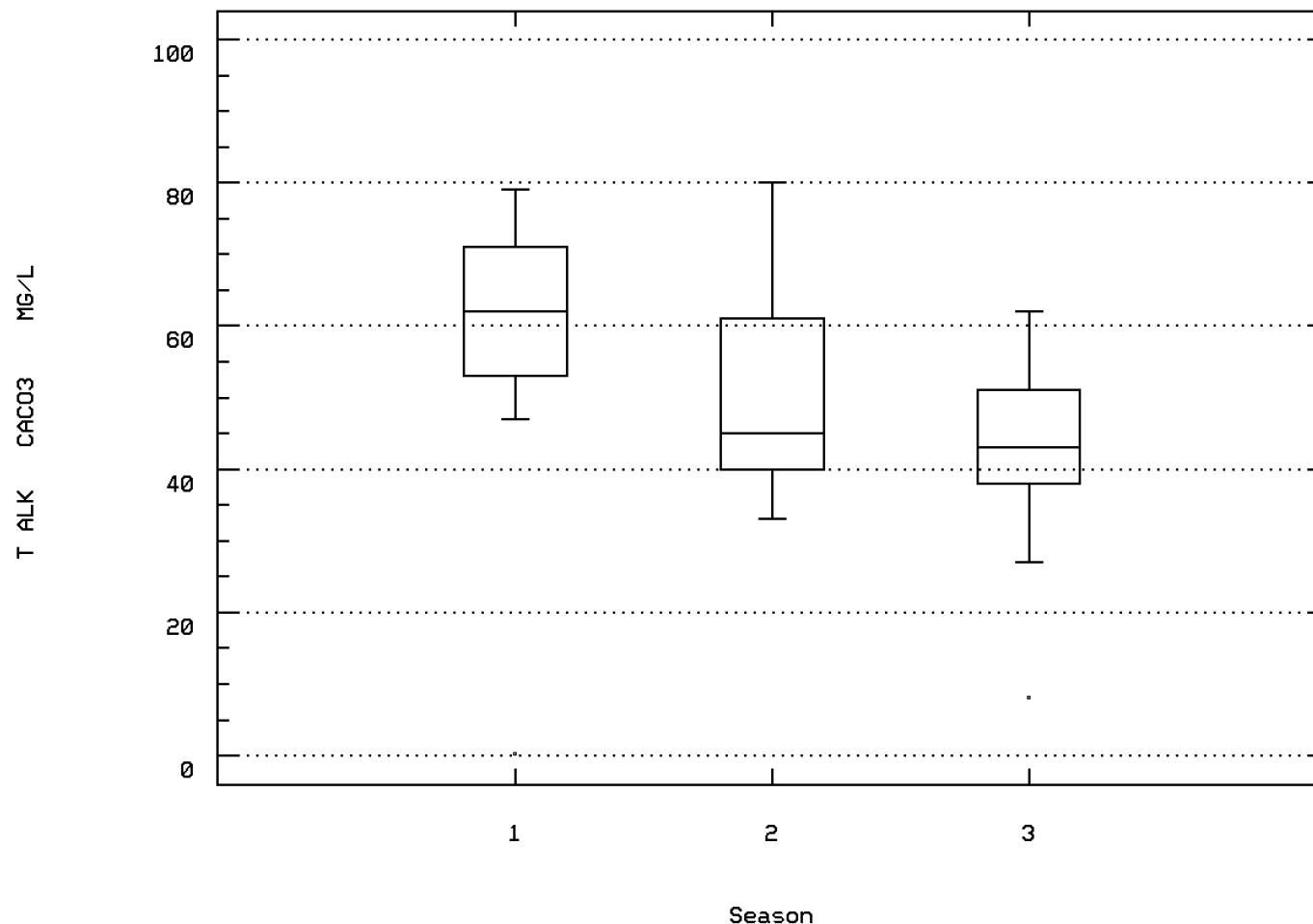
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



BUOY 166

Station: RICH0069 Parameter Code: 00410

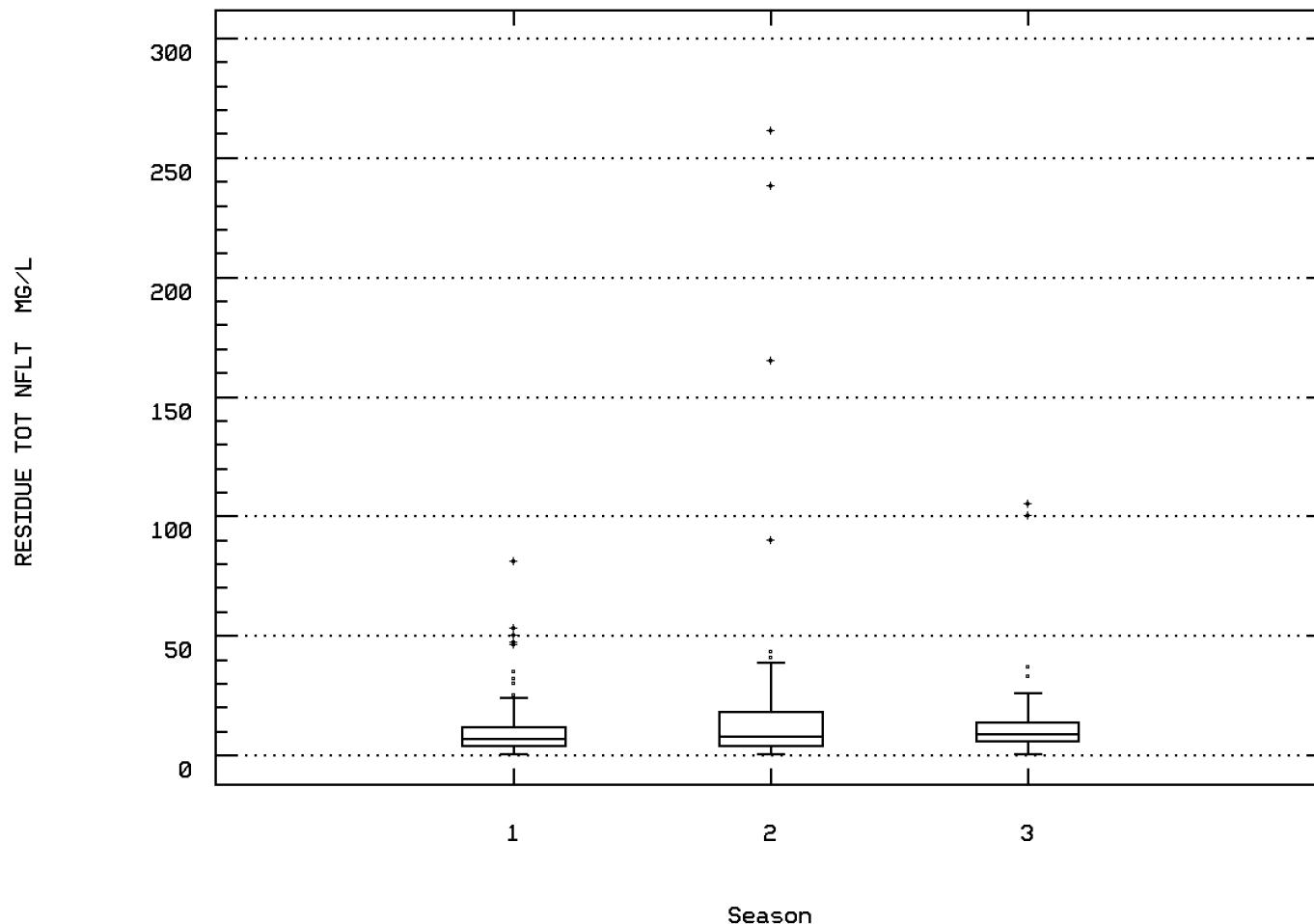
ALKALINITY, TOTAL (MG/L AS CACO<sub>3</sub>)



BUOY 166

Station: RICH0069 Parameter Code: 00530

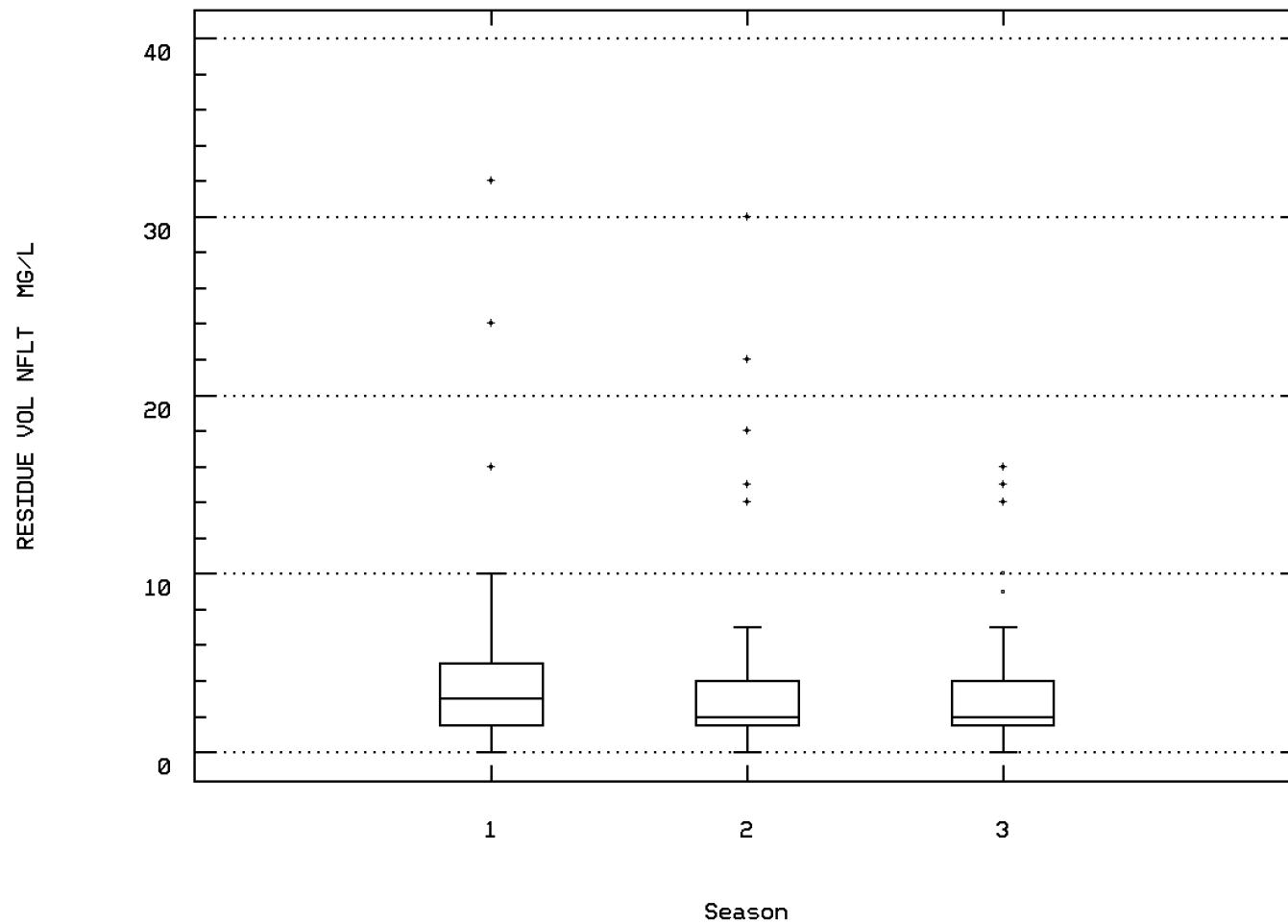
RESIDUE, TOTAL NONFILTRABLE (MG/L)



BUOY 166

Station: RICH0069 Parameter Code: 00535

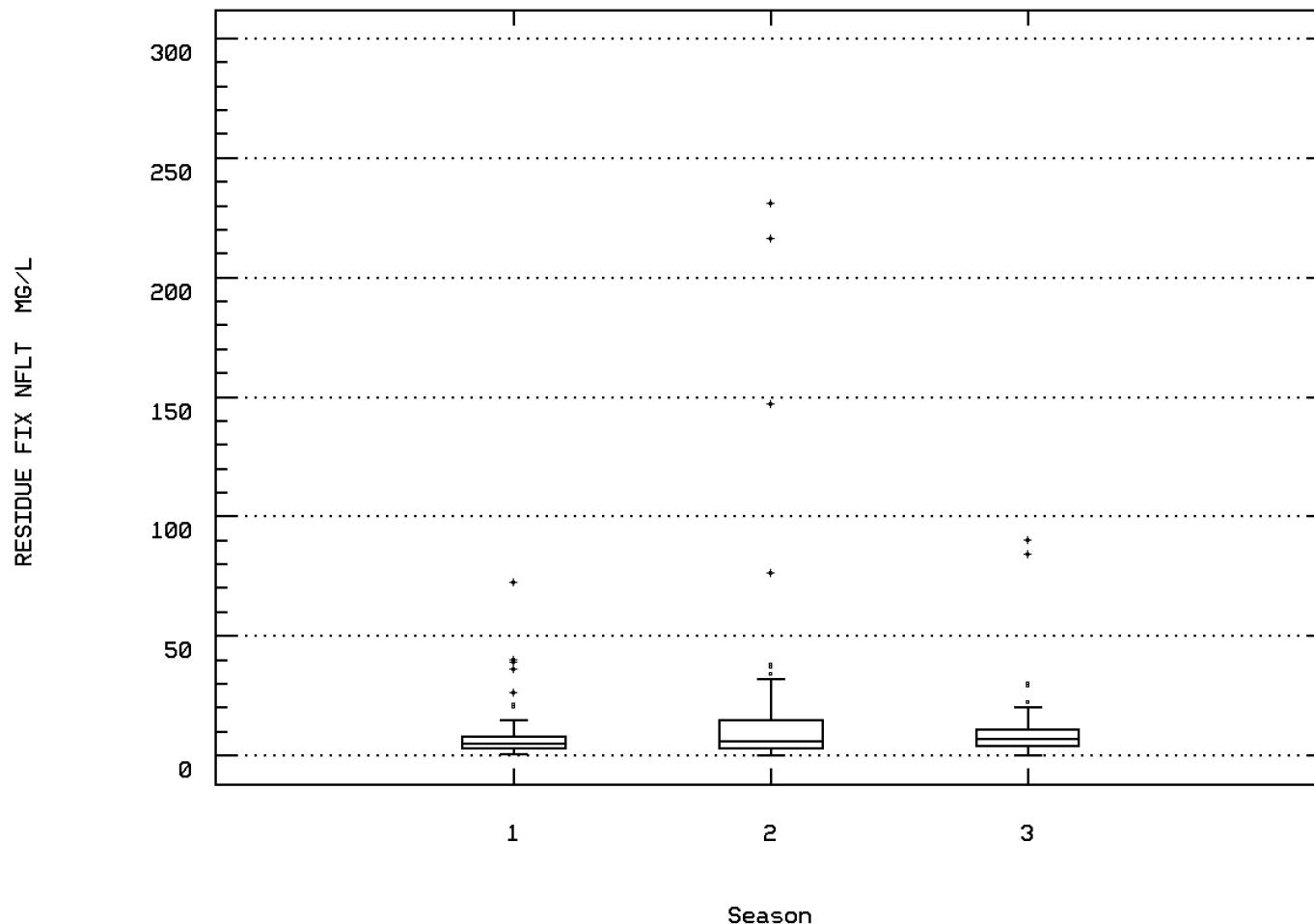
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



BUOY 166

Station: RICH0069 Parameter Code: 00540

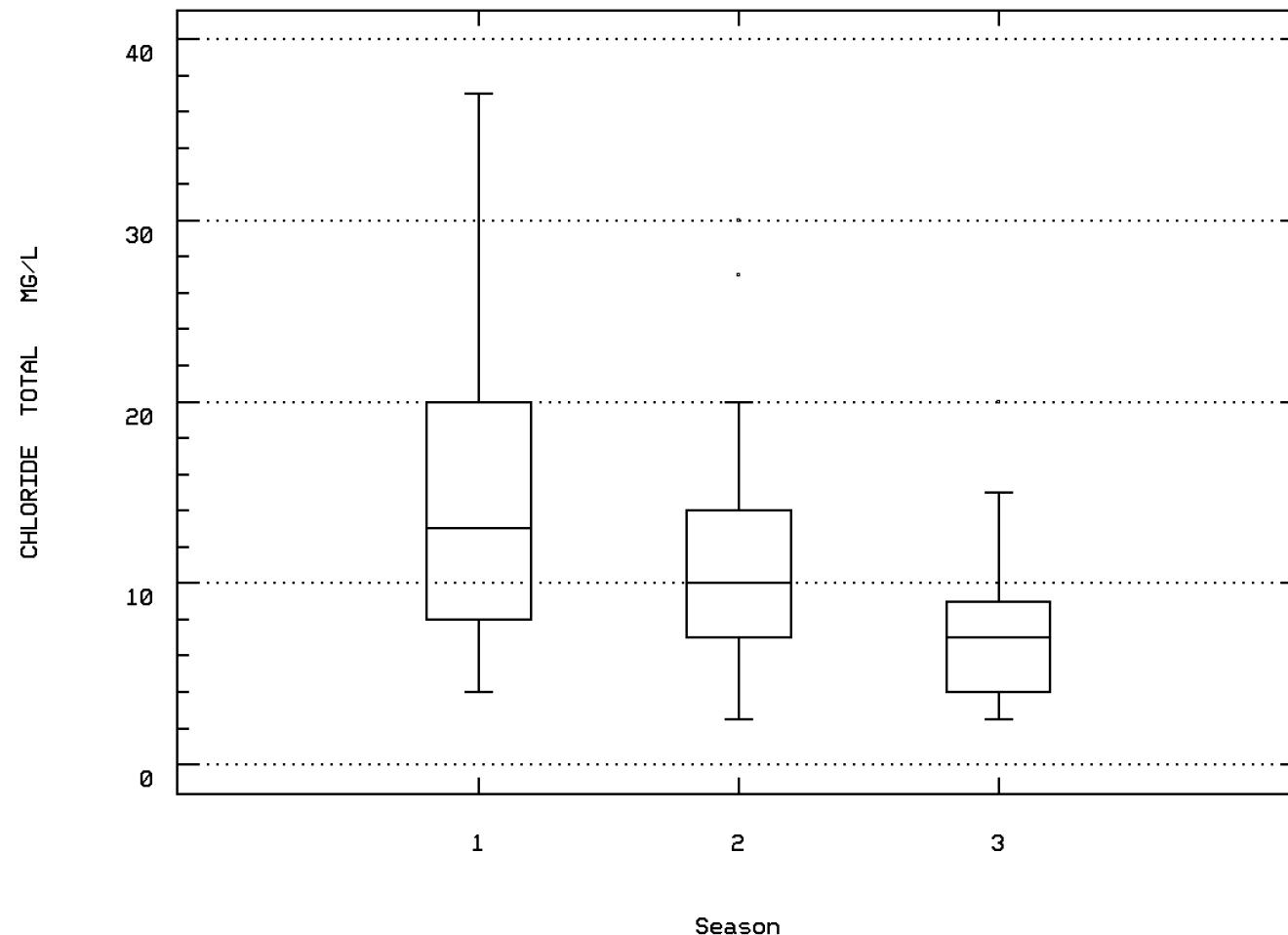
RESIDUE, FIXED NONFILTRABLE (MG/L)



BUOY 166

Station: RICH0069 Parameter Code: 00940

CHLORIDE, TOTAL IN WATER



BUOY 166

## Station Inventory for Station: RICH0070

NPS Station ID: RICH0070  
 Location: BELOW DEEPWATER TERM R"166" J04  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206046  
 RF3 Index: 02080206004603.50  
 Description:

LAT/LON: 37.450004/ -77.420837

Depth of Water: 1  
 Elevation: 0  
 RF1 Mile Point: 0.990  
 RF3 Mile Point: 4.19

Agency: 1113JAWQ  
 FIPS State/County: 51000 VIRGINIA/  
 STORET Station ID(s): JAMES J04 /J04 /J4  
 Within Park Boundary: No

Date Created: / /

On/Off RF1: ON  
 On/Off RF3:

## Parameter Inventory for Station: RICH0070

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/04/71	20	25.	22.11	27.2	7.2	27.702	5.263	13.64	19.125	25.6	26.64
00077	TRANSPARENCY, SECCHI DISC (INCHES)	10/19/71-11/04/71	4	23.5	24.75	36.	16.	76.917	8.77	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/04/71	20	7.4	7.685	12.5	3.4	4.57	2.138	4.4	6.625	8.8	11.62
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-11/04/71	11	1.8	2.091	3.7	0.8	1.015	1.007	0.88	1.2	3.2	3.66
00400	PH (STANDARD UNITS)	07/22/68-11/02/71	18	8.45	8.367	9.3	6.5	0.545	0.738	6.68	8.2	8.925	9.03
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-11/02/71	18	8.447	7.497	9.3	6.5	1.345	1.16	6.68	8.2	8.925	9.03
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-11/02/71	18	0.004	0.032	0.316	0.001	0.007	0.085	0.001	0.001	0.006	0.211
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-11/04/71	13	0.6	0.796	2.	0.03	0.465	0.682	0.033	0.18	1.35	1.92
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-11/04/71	14	0.76	1.031	2.5	0.3	0.543	0.737	0.305	0.49	1.7	2.35
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/21/70-11/04/71	15	0.15	0.261	1.1	0.01	0.087	0.295	0.016	0.06	0.45	0.8
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/21/70-11/04/71	14	0.125	0.188	0.67	0.05	0.028	0.166	0.05	0.1	0.228	0.52
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	04/21/70-11/04/71	15	0.05	0.089	0.35	0.01	0.008	0.089	0.016	0.03	0.13	0.248
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	10/21/71-11/04/71	4	5.15	6.55	12.5	3.4	17.15	4.141	**	**	**	**
00690	CARBON, TOTAL (MG/L AS C)	10/21/71-11/04/71	4	12.15	13.625	19.4	10.8	15.962	3.995	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	05/05/70-05/05/70	1	7905.	7905.	7905.	7905.	0.	0.	**	**	**	**
31505	COLIFORM, TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-11/04/71	23	430.	27682.304	240000.	0.	4652896789.585	68212.145	30.	30.	24000.	157920
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150	07/22/68-11/04/71	23	2.633	2.76	5.38	0.	2.271	1.507	1.477	1.477	4.38	5.045
31505	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506	GEOMETRIC MEAN =		575.824									
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/14/71-11/04/71	8	3115.	33966.25	240000.	100.	6965750483.929	83461.072	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/14/71-11/04/71	8	3.321	3.27	5.38	2.	1.567	1.252	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		1862.792									
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/19/71-10/19/71	1	240000.	240000.	240000.	240000.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/19/71-10/19/71	1	5.38	5.38	5.38	5.38	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		240000.									
32210	CHLOROPHYLL-A UG/L TRICROMATIC UNCORRECTED	10/19/71-11/02/71	3	9.	7.267	9.8	3.	13.813	3.717	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0070

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	1	0.05	10	1	0.10	4	0	0.00	6	0	0.00		
00400	PH	Fresh Chronic	9.	18	4	0.22	10	4	0.40	2	0	0.00	6	0	0.00		
		Other-Lo Lim.	6.5	18	1	0.06	10	0	0.00	2	1	0.50	6	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0070

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	15	0	0.00	7	0	0.00	4	0	0.00	4	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	1	1	1.00							1	1	1.00			
		Drinking Water	250.	1	1	1.00							1	1	1.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	23	8	0.35	10	1	0.10	7	7	1.00	6	0	0.00			
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	8	5	0.63	3	1	0.33	4	4	1.00	1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	1	1.00				1	1	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0071

NPS Station ID: RICH0071  
Location: VIMS STATION A55 -JAMES RIVER  
Station Type: /TYP/A/AMBNT/STREAM  
RMI-Indexes:  
RMI-Miles:  
HUC: 02080206  
Major Basin: NORTH ATLANTIC  
Minor Basin: JAMES RIVER  
RF1 Index: 02080206046  
RF3 Index: 02080205013100.00  
Description:

LAT/LON: 37.452504/ -77.417226

Agency: CHESBAY  
FIPS State/County: 51087 VIRGINIA/HENRICO  
STORET Station ID(s): XPL2546  
Within Park Boundary: No

Date Created: 01/29/83

Depth of Water: 0  
Elevation: 0  
RF1 Mile Point: 1.340  
RF3 Mile Point: 0.00

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 20.20  
Distance from RF3: 0.31

On/Off RF1: ON  
On/Off RF3:

## Parameter Inventory for Station: RICH0071

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0072

NPS Station ID: RICH0072  
Location: VIMS STATION J89 - JAMES RIVER  
Station Type: /TYP/A/AMBNT/STREAM  
RMI-Indexes:  
RMI-Miles:  
HUC: 02080206  
Major Basin: NORTH ATLANTIC  
Minor Basin: JAMES RIVER  
RF1 Index: 02080206046  
RF3 Index: 02080206004512.50  
Description:

LAT/LON: 37.452504/ -77.417226

Agency: CHESBAY  
FIPS State/County: 51087 VIRGINIA/HENRICO  
STORET Station ID(s): XOL1050  
Within Park Boundary: No

Date Created: 01/29/83

Depth of Water: 0  
Elevation: 0  
RF1 Mile Point: 1.340  
RF3 Mile Point: 14.72

Aquifer:  
Water Body Id:  
ECO Region:  
Distance from RF1: 0.00  
Distance from RF3: 0.05

On/Off RF1: ON  
On/Off RF3:

## Parameter Inventory for Station: RICH0072

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0073

NPS Station ID: RICH0073  
 Location: VIMS STATION A55-JAMES RIVER  
 Station Type: /TYP/A/AMBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206046  
 RF3 Index: 02080206138300.00  
 Description:

LAT/LON: 37.452504/ -77.417226

Agency: CHESBAY  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): XPL2546  
 Within Park Boundary: No

Date Created: 06/11/83

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 1.340  
 RF3 Mile Point: 0.24

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.00

On/Off RF1: ON  
 On/Off RF3:

### Parameter Inventory for Station: RICH0073

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/71-08/11/71	121	27.2	26.521	29.4	21.9	3.346	1.829	22.9	26.3	27.7	28.1
00077	TRANSPARENCY, SECCHI DISC (INCHES)	08/20/64-08/20/64	2	24.	24.	24.	24.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/71-08/11/71	132	6.85	6.867	9.	4.9	0.514	0.717	5.9	6.4	7.4	7.8

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0073

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	Other-Lo Lim.	4.	132	0	0.00	105	0	0.00		27	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0074

NPS Station ID: RICH0074  
 Location: FOURMILE CREEK, DORAN RD  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: FOURMILE RUN SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.454726/ -77.331670

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-FOM005.49  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0074

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-06/04/97	3	13.6	13.2	14.1	11.9	1.33	1.153	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/07/94-06/04/97	3	60.	60.333	63.	58.	6.333	2.517	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-06/04/97	3	9.5	9.833	10.7	9.3	0.573	0.757	**	**	**	**
00400	PH (STANDARD UNITS)	12/07/94-06/04/97	3	5.54	5.583	5.72	5.49	0.015	0.121	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/07/94-06/04/97	3	5.54	5.573	5.72	5.49	0.015	0.122	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/07/94-06/04/97	3	2.884	2.675	3.236	1.905	0.475	0.689	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0074

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	3	0	0.00				1	0	0.00	2	0	0.00			
00400	PH	Fresh Chronic	9.	3	0	0.00				1	0	0.00	2	0	0.00			
		Other-Lo Lim.	6.5	3	3	1.00				1	1	1.00	2	2	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0075

NPS Station ID: RICH0075	LAT/LON: 37.455003/ -77.333059	Agency: 21VASWCB	Date Created: 05/06/95
Location: UNNAMED TRIB TO FOURMILE CR. BELOW DOREY PARK		FIPS State/County: 51087 VIRGINIA/HENRICO	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): 2-XPZ000.02	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: 02-NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: 2-JAMES		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description: VIRGINIA STATE WATER CONTROL BOARD RIVER: UNNAMED TRIB TO FOUR MILE CR.	AMBIENT MONITORING SECTION: 02B	BASIN: 2- JAMES TOPO MAP #: 0137 TOPO MAP NAME: DUTCHGAP, VA	REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0075

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-12/07/94	1	13.8	13.8	13.8	13.8	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/07/94-12/07/94	1	58.	58.	58.	58.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-12/07/94	1	9.3	9.3	9.3	9.3	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/07/94-12/07/94	1	5.59	5.59	5.59	5.59	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/07/94-12/07/94	1	5.59	5.59	5.59	5.59	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/07/94-12/07/94	1	2.57	2.57	2.57	2.57	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0075

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00		
00400	PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00		
		Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0076

NPS Station ID: RICH0076 LAT/LON: 37.455281/ -77.332781 Date Created: 05/06/95  
 Location: ABOVE UT CONFLUENCE, 160M ABOVE DORAN RD.  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206 Depth of Water: 0 Aquifer:  
 Major Basin: 02-NORTH ATLANTIC Elevation: 0 Water Body Id:  
 Minor Basin: 2-JAMES ECO Region:  
 RF1 Index: 02080206 Distance from RF1: 0.00 On/Off RF1:  
 RF3 Index: 02080206000501.22 Distance from RF3: 0.29 On/Off RF3:  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: FOURMILE CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

### Parameter Inventory for Station: RICH0076

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-12/07/94	1	13.2	13.2	13.2	13.2	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/07/94-12/07/94	1	76.	76.	76.	76.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-12/07/94	1	9.6	9.6	9.6	9.6	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	12/07/94-12/07/94	1	5.06	5.06	5.06	5.06	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/07/94-12/07/94	1	5.06	5.06	5.06	5.06	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/07/94-12/07/94	1	8.71	8.71	8.71	8.71	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0076

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00			1	0	0.00						
00400	PH	Fresh Chronic	9.	1	0	0.00			1	0	0.00						
		Other-Lo Lim.	6.5	1	1	1.00			1	1	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0077

NPS Station ID: RICH0077  
 Location: JAMES RIVER, OFF DEEPWATER TERMINAL  
 Station Type: /TYP/A/MBNT/STREAM

LAT/LON: 37.456116/ -77.419448

RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD  
 RIVER: JAMES RIVER

Depth of Water: 0  
 Elevation: 0

RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-JMS104.58  
 Within Park Boundary: No

Date Created: 06/25/94

AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0077

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	51	24.6	23.947	31.5	14.9	20.801	4.561	16.1	20.9	28.1	28.88
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	11	3.8	4.209	8.	2.3	3.691	1.921	2.34	2.6	5.6	7.8
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	47	214.	221.128	400.	108.	4351.722	65.968	136.	171.	286.	299.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	11	214.	198.727	270.	122.	2630.618	51.29	122.2	139.	238.	266.6
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	50	8.05	8.248	10.1	6.7	0.799	0.894	7.2	7.575	8.825	9.69
00310	BOD, 5 DAY, 20 DEG C MG/L	06/28/94-06/01/95	12	1.15	1.042	1.9	0.5	0.275	0.525	0.5	0.5	1.475	1.84
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	51	7.75	7.774	8.63	6.8	0.142	0.377	7.262	7.55	8.01	8.302
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	51	7.75	7.611	8.63	6.8	0.17	0.412	7.262	7.55	8.01	8.302
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	51	0.018	0.025	0.158	0.002	0.001	0.026	0.005	0.01	0.028	0.055
00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	10	7.45	7.32	7.8	6.7	0.151	0.388	6.72	6.9	7.625	7.79
00403	CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	10	7.447	7.162	7.8	6.7	0.178	0.422	6.72	6.9	7.625	7.79
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	10	0.036	0.069	0.2	0.016	0.004	0.062	0.016	0.024	0.126	0.192
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	07/28/94-06/01/95	10	55.	51.9	71.	23.	218.989	14.798	23.9	42.5	63.5	70.4
00500	RESIDUE, TOTAL (MG/L)	07/28/94-05/18/95	9	139.	135.222	169.	76.	921.194	30.351	76.	116.5	158.	169.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-05/18/95	9	36.	31.667	51.	9.	154.5	12.43	9.	23.5	40.	51.
00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-05/18/95	9	101.	103.556	152.	54.	939.528	30.652	54.	79.	129.	152.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	11	4.	5.864	12.	1.5	11.505	3.392	1.8	4.	8.	11.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	11 ##	1.5	1.591	2.	1.	0.091	0.302	1.1	1.5	2.	2.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	11	3.	4.545	10.	1.5	9.023	3.004	1.5	2.	7.	9.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/28/94-06/01/95	12	0.195	0.214	0.34	0.09	0.007	0.083	0.102	0.145	0.298	0.334
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	11 ##	0.005	0.013	0.03	0.005	0.	0.01	0.005	0.005	0.02	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	11	0.17	0.178	0.34	0.02	0.01	0.102	0.024	0.09	0.23	0.336
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/14/94-06/01/95	11	0.4	0.445	0.6	0.3	0.013	0.113	0.3	0.4	0.6	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/14/94-06/01/95	11	0.08	0.086	0.14	0.05	0.001	0.028	0.052	0.06	0.1	0.138
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	10	15.	13.8	21.	6.	35.511	5.959	6.	6.	20.	20.9
00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	10	22.	21.3	34.	11.	71.789	8.473	11.	11.75	29.25	33.6
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	53	790.	3103.509	16000.	20.	28133430.101	5304.096	45.	170.	2300.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	53	2.898	2.859	4.204	1.301	0.668	0.818	1.653	2.23	3.361	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	722.777								
70507	PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	11	0.06	0.066	0.1	0.04	0.	0.022	0.04	0.05	0.08	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0077

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00			
00400 PH	Fresh Chronic	9.	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00			
	Other-Lo Lim.	6.5	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00			
00403 PH, LAB	Fresh Chronic	9.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
	Other-Lo Lim.	6.5	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	53	39	0.74	32	22	0.69	5	3	0.60	16	14	0.88			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0077

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	9	25.8	24.867	30.6	17.8	20.373	4.514	17.8	20.25	28.15	30.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	8.1	8.111	9.7	6.7	0.919	0.958	6.7	7.35	8.85	9.7
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	9	7.73	7.836	8.34	7.59	0.077	0.277	7.59	7.605	8.1	8.34
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	9	7.73	7.771	8.34	7.59	0.081	0.285	7.59	7.605	8.1	8.34
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	9	0.019	0.017	0.026	0.005	0.	0.008	0.005	0.008	0.025	0.026
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	1700.	4471.111	16000.	220.	43201736.111	6572.803	220.	560.	9200.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	3.23	3.228	4.204	2.342	0.42	0.648	2.342	2.708	3.792	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		1689.276							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0077

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	8	23.5	23.213	31.5	14.9	32.496	5.7	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	8	8.	8.262	10.1	6.8	1.094	1.046	**	**	**	**
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	8	7.54	7.653	8.52	7.23	0.221	0.47	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	8	7.518	7.49	8.52	7.23	0.252	0.502	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	8	0.03	0.032	0.059	0.003	0.001	0.023	**	**	**	**
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	330.	1551.111	9200.	20.	8651261.111	2941.303	20.	150.	1700.	9200.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	2.519	2.625	3.964	1.301	0.599	0.774	1.301	2.172	3.23	3.964
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		421.291							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0077

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	12	21.45	22.35	28.8	15.4	18.628	4.316	15.85	19.45	26.85	28.59
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.5	8.533	9.9	7.3	0.661	0.813	7.36	7.775	9.05	9.84
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.74	7.798	8.63	6.8	0.249	0.499	6.962	7.48	8.255	8.534
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.74	7.527	8.63	6.8	0.329	0.574	6.962	7.48	8.255	8.534
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	12	0.018	0.03	0.158	0.002	0.002	0.043	0.003	0.006	0.034	0.125
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	1045.	3671.5	16000.	40.	35328976.091	5943.818	51.4	180.	4600.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	3.006	2.952	4.204	1.602	0.714	0.845	1.689	2.215	3.635	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		895.602							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0077

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	10	24.6	24.03	28.9	15.6	19.645	4.432	16.07	21.125	28.1	28.88
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	7.9	8.078	9.6	7.2	0.692	0.832	7.2	7.5	8.7	9.6
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	10	7.595	7.635	8.15	7.27	0.06	0.244	7.288	7.48	7.783	8.117
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	10	7.593	7.58	8.15	7.27	0.063	0.251	7.288	7.48	7.783	8.117
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	10	0.026	0.026	0.054	0.007	0.	0.013	0.008	0.017	0.033	0.052
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	1700.	2730.727	16000.	78.	2060289.818	4539.034	84.4	460.	2800.	13500.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	3.23	3.031	4.204	1.892	0.445	0.667	1.922	2.663	3.447	4.072
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		1073.234							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0077

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	12	25.75	25.275	30.4	15.9	18.558	4.308	17.19	22.05	28.7	30.01
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	7.9	8.183	10.1	7.2	0.9	0.949	7.2	7.4	8.8	9.89
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.985	7.901	8.31	7.02	0.103	0.321	7.203	7.85	8.055	8.25
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.985	7.739	8.31	7.02	0.132	0.363	7.203	7.85	8.055	8.25
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	12	0.01	0.018	0.095	0.005	0.001	0.025	0.006	0.009	0.014	0.074
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	190.	3015.833	16000.	20.	37222967.424	6101.063	26.	45.	1997.5	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	2.276	2.508	4.204	1.301	0.97	0.985	1.391	1.653	3.26	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		321.964							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0078

NPS Station ID: RICH0078  
 Location: DEERLICK BRANCH, DARBYTOWN ROAD  
 Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:  
 RMI-Miles:

HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22

Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: DEERLICK CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.457226/ -77.309170

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-DLK001.19  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0078

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/09/94-06/04/97	3	12.1	10.967	13.6	7.2	11.203	3.347	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/09/94-06/04/97	3	54.	55.	61.	50.	31.	5.568	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/09/94-06/04/97	3	9.8	9.9	10.8	9.1	0.73	0.854	**	**	**	**
00400	PH (STANDARD UNITS)	12/09/94-06/04/97	3	5.	5.137	5.45	4.96	0.074	0.272	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/09/94-06/04/97	3	5.	5.088	5.45	4.96	0.078	0.279	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/09/94-06/04/97	3	10.	8.171	10.965	3.548	16.261	4.032	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0078

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	3	0	0.00				1	0	0.00	2	0	0.00
00400	PH	Fresh Chronic	9.	3	0	0.00				1	0	0.00	2	0	0.00
		Other-Lo Lim.	6.5	3	3	1.00				1	1	1.00	2	2	1.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0079

NPS Station ID: RICH0079  
 Location: RT. 10 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206004701.77  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: FALLING CREEK SECTION: 07A TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.458448/ -77.486032

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-FAC005.78 /VA2-07AX0081/VA2-4X0081  
 Within Park Boundary: No

Date Created: / /  
 On/Off RF1:  
 On/Off RF3:

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 5.07

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.02

### Parameter Inventory for Station: RICH0079

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	64	18.9	17.419	34.4	0.8	83.598	9.143	3.7	8.9	25.575	28.05
00300 OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	65	9.4	9.414	15.6	1.2	4.612	2.148	7.72	8.4	10.4	12.
00400 PH (STANDARD UNITS)	03/30/73-06/21/79	64	7.2	7.298	9.	6.5	0.315	0.561	6.75	7.	7.5	8.
00400 CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	64	7.2	7.069	9.	6.5	0.368	0.607	6.75	7.	7.5	8.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/21/79	64	0.063	0.085	0.316	0.001	0.006	0.077	0.01	0.032	0.1	0.179
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	62 ##	0.05	0.063	0.2	0.05	0.001	0.027	0.05	0.05	0.05	0.1
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	63 ##	0.005	0.01	0.28	0.005	0.001	0.035	0.005	0.005	0.005	0.01
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-03/07/79	48	0.1	0.126	0.36	0.005	0.009	0.097	0.024	0.043	0.208	0.281
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	62	0.4	0.388	0.7	0.05	0.027	0.164	0.2	0.3	0.5	0.6
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	14	0.085	0.118	0.31	0.025	0.009	0.096	0.025	0.025	0.2	0.28
01002 ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3 ##	1.	0.833	1.	0.5	0.083	0.289	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4 ##	5.	3.875	5.	0.5	5.063	2.25	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-11/17/77	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	05/29/73-11/17/77	7 ##	5.	11.429	50.	5.	289.286	17.008	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	08/04/73-11/17/77	6	5.5	8.667	20.	4.	39.067	6.25	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	6 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	05/29/73-11/17/77	7	10.	13.571	30.	5.	97.619	9.88	**	**	**	**
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/21/79	61 ##	50.	231.148	6000.	50.	593346.995	770.29	50.	50.	100.	480.
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	03/30/73-06/21/79	61 ##	1.699	1.969	3.778	1.699	0.181	0.425	1.699	1.699	2.	2.68
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	93.077								
50060 CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	62 ##	0.05	0.059	0.2	0.005	0.001	0.026	0.05	0.05	0.05	0.1
70507 PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	62 ##	0.02	0.03	0.1	0.005	0.001	0.026	0.005	0.005	0.05	0.05
71900 MERCURY, TOTAL (UG/L AS HG)	05/29/73-11/17/77	7 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0079

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	65	2	0.03	20	2	0.10	22	0	0.00	23	0	0.00	
00400 PH	Fresh Chronic	9.	64	3	0.05	20	2	0.10	22	0	0.00	22	1	0.05	
00615 NITRITE NITROGEN, TOTAL AS N	Other-Lo Lim.	6.5	64	3	0.05	20	0	0.00	22	2	0.09	22	1	0.05	
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	1.	63	0	0.00	20	0	0.00	21	0	0.00	22	0	0.00	
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	48	0	0.00	17	0	0.00	16	0	0.00	15	0	0.00	
01002 ARSENIC, TOTAL	Drinking Water	10.	14	0	0.00	3	0	0.00	4	0	0.00	7	0	0.00	
	Fresh Acute	360.	3	0	0.00	1	0	0.00				2	0	0.00	
	Drinking Water	50.	3	0	0.00	1	0	0.00				2	0	0.00	
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00	1	0	0.00				2	0	0.00	
	Drinking Water	5.	1 &	0	0.00	1	0	0.00				2	0	0.00	
01034 CHROMIUM, TOTAL	Drinking Water	100.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
01042 COPPER, TOTAL	Fresh Acute	18.	7	1	0.14	1	0	0.00	2	0	0.00	4	1	0.25	
01051 LEAD, TOTAL	Drinking Water	1300.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
	Fresh Acute	82.	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00	
01065 NICKEL, DISSOLVED	Drinking Water	15.	6	1	0.17	1	1	1.00	2	0	0.00	3	0	0.00	
	Fresh Acute	1400.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00	
01092 ZINC, TOTAL	Drinking Water	100.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00	
	Fresh Acute	120.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
	Drinking Water	5000.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	61	14	0.23	19	4	0.21	21	5	0.24	21	5	0.24	
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00							
71900 MERCURY, TOTAL	Fresh Acute	2.4	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	
	Drinking Water	2.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1973 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	10	19.7	19.34	27.8	5.6	58.587	7.654	6.15	12.75	26.825	27.74
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	10	9.3	9.58	12.	7.6	1.88	1.371	7.68	8.4	10.85	11.9
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	10	7.	7.12	8.5	6.8	0.26	0.509	6.8	6.8	7.15	8.38
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	10	7.	6.985	8.5	6.8	0.28	0.529	6.8	6.8	7.15	8.38
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	10	0.1	0.103	0.158	0.003	0.003	0.051	0.008	0.072	0.158	0.158
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	10	0.6	0.53	0.7	0.1	0.038	0.195	0.12	0.45	0.7	0.7
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	10 ##	75.	165.	500.	50.	33361.111	182.65	50.	50.	275.	500.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	10 ##	1.849	2.019	2.699	1.699	0.169	0.411	1.699	1.699	2.401	2.699
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				104.564								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	10 ##	0.05	0.065	0.2	0.05	0.002	0.047	0.05	0.05	0.05	0.185
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	11	14.4	16.009	28.3	6.7	73.619	8.58	6.92	8.9	27.2	28.08
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	11	9.7	9.827	12.	8.	1.672	1.293	8.04	8.4	10.6	11.88
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.2	7.2	8.5	6.5	0.324	0.569	6.5	6.8	7.5	8.3
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.2	6.952	8.5	6.5	0.392	0.626	6.5	6.8	7.5	8.3
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	11	0.063	0.112	0.316	0.003	0.012	0.111	0.009	0.032	0.158	0.316
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	11 ##	0.05	0.068	0.1	0.05	0.001	0.025	0.05	0.05	0.1	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	11 ##	0.005	0.005	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.009
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	11	0.4	0.436	0.6	0.3	0.013	0.112	0.3	0.3	0.5	0.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	10 ##	50.	190.	1000.	50.	92666.667	304.412	50.	50.	175.	940.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	10 ##	1.699	1.98	3.	1.699	0.211	0.46	1.699	1.699	2.151	2.96
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				95.409								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	12	20.	17.867	27.8	5.6	50.486	7.105	6.41	11.1	22.2	27.29
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	12	9.4	9.575	12.7	7.8	1.873	1.369	7.92	8.45	10.3	12.19
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	12	7.2	7.125	7.5	6.5	0.109	0.331	6.56	6.85	7.45	7.5
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	12	7.2	7.002	7.5	6.5	0.126	0.355	6.56	6.85	7.45	7.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	12	0.063	0.1	0.316	0.032	0.007	0.086	0.032	0.036	0.144	0.281
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	10 ##	0.05	0.065	0.1	0.05	0.001	0.024	0.05	0.05	0.1	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	10 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	10	0.3	0.315	0.6	0.5	0.022	0.149	0.065	0.2	0.4	0.58
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11 ##	50.	113.636	500.	50.	18545.455	136.182	50.	50.	100.	440.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11 ##	1.699	1.899	2.699	1.699	0.11	0.332	1.699	1.699	2.	2.619
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				79.313								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	10 ##	0.05	0.07	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	10 ##	0.035	0.031	0.05	0.005	0.	0.021	0.006	0.01	0.05	0.05

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	7	21.1	21.186	34.4	4.4	91.435	9.562	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	8	8.8	8.925	10.8	7.2	1.256	1.121	**	**	**	**
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	8	7.5	7.5	9.	7.	0.429	0.655	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	8	7.5	7.272	9.	7.	0.488	0.698	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	8	0.032	0.053	0.1	0.001	0.002	0.04	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	7##	0.05	0.057	0.1	0.05	0.	0.019	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	8##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	7	0.3	0.329	0.6	0.1	0.029	0.17	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	7##	50.	971.429	6000.	50.	4944047.619	2223.521	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	7##	1.699	2.182	3.778	1.699	0.63	0.794	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		152.005									
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	7##	0.05	0.057	0.1	0.05	0.	0.019	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	7	0.01	0.011	0.02	0.005	0.	0.007	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	11	15.	16.391	32.	1.	147.047	12.126	1.02	2.7	27.5	32.
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	11	9.5	8.618	14.	1.2	14.912	3.862	1.3	8.4	10.3	13.52
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.5	7.591	9.	6.8	0.343	0.586	6.84	7.4	8.	8.8
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.5	7.348	9.	6.8	0.408	0.639	6.84	7.4	8.	8.8
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	11	0.032	0.045	0.158	0.001	0.002	0.046	0.003	0.01	0.04	0.147
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	11##	0.05	0.068	0.2	0.05	0.002	0.046	0.05	0.05	0.05	0.18
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	11##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.01	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	11	0.3	0.345	0.6	0.2	0.017	0.129	0.2	0.2	0.4	0.58
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11##	50.	72.727	200.	50.	2181.818	46.71	50.	50.	100.	180.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11##	1.699	1.808	2.301	1.699	0.041	0.203	1.699	1.699	2.	2.241
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		64.333									
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	11##	0.05	0.05	0.1	0.005	0.	0.021	0.014	0.05	0.05	0.09
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	11##	0.005	0.006	0.02	0.005	0.	0.005	0.005	0.005	0.005	0.017

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	8	17.75	17.663	30.	0.8	103.668	10.182	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	8	8.5	9.275	15.6	6.6	8.022	2.832	**	**	**	**
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	7	7.2	7.486	9.	7.	0.521	0.722	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	7	7.2	7.226	9.	7.	0.6	0.775	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	7	0.063	0.059	0.1	0.001	0.002	0.042	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	8##	0.05	0.069	0.1	0.05	0.001	0.026	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	8##	0.005	0.008	0.02	0.005	0.	0.005	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	8	0.35	0.413	0.7	0.2	0.03	0.173	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	8	150.	181.25	400.	50.	19241.071	138.712	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	8	2.151	2.119	2.602	1.699	0.152	0.39	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		131.607									
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	8##	0.05	0.056	0.1	0.05	0.	0.018	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	8	0.015	0.022	0.06	0.005	0.	0.022	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	5	11.5	12.2	23.5	2.	98.575	9.928	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	5	9.8	10.54	12.3	9.	2.258	1.503	**	**	**	**
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	5	7.	7.06	7.6	6.6	0.228	0.477	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	5	7.	6.88	7.6	6.6	0.268	0.518	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	5	0.1	0.132	0.251	0.025	0.013	0.113	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	5 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	5 ##	0.005	0.06	0.28	0.005	0.015	0.123	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	5	0.3	0.28	0.4	0.2	0.007	0.084	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	4 ##	50.	62.5	100.	50.	625.	25.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	4 ##	1.699	1.774	2.	1.699	0.023	0.151	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	59.46								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	5 ##	0.05	0.06	0.1	0.05	0.001	0.022	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	5	0.01	0.008	0.01	0.005	0.	0.003	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	19	26.1	24.474	32.	2.7	45.215	6.724	16.7	21.1	28.3	32.
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	20	8.5	7.92	10.	1.2	5.647	2.376	2.19	7.65	9.35	9.69
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	20	7.5	7.65	9.	6.7	0.405	0.636	7.	7.3	7.925	8.95
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	20	7.5	7.36	9.	6.7	0.493	0.702	7.	7.3	7.925	8.95
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	20	0.032	0.044	0.2	0.001	0.002	0.046	0.001	0.012	0.05	0.1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	19 ##	0.05	0.066	0.2	0.05	0.001	0.037	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	20 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	19	0.5	0.458	0.7	0.1	0.029	0.171	0.3	0.3	0.6	0.7
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	19 ##	50.	126.316	500.	50.	21491.228	146.599	50.	50.	100.	500.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	19 ##	1.699	1.924	2.699	1.699	0.126	0.355	1.699	1.699	2.	2.699
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				84.025								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	19 ##	0.05	0.061	0.1	0.05	0.	0.021	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	19 ##	0.02	0.026	0.05	0.005	0.	0.021	0.005	0.005	0.05	0.05

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	22	8.15	8.577	19.4	0.8	29.239	5.407	1.03	4.05	13.35	15.57
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	22	10.9	11.064	15.6	8.4	2.805	1.675	9.12	9.9	12.	13.61
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	22	7.	6.995	7.5	6.5	0.104	0.323	6.53	6.8	7.25	7.5
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	22	7.	6.892	7.5	6.5	0.116	0.34	6.53	6.8	7.25	7.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	22	0.1	0.128	0.316	0.032	0.008	0.087	0.032	0.057	0.158	0.297
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	21 ##	0.05	0.062	0.1	0.05	0.	0.022	0.05	0.05	0.075	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	21 ##	0.005	0.019	0.28	0.005	0.004	0.06	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	21	0.3	0.348	0.7	0.1	0.025	0.157	0.2	0.2	0.5	0.58
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	21 ##	50.	402.381	6000.	50.	1660869.048	1288.747	50.	50.	150.	480.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	21 ##	1.699	2.026	3.778	1.699	0.266	0.515	1.699	1.699	2.151	2.68
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				106.17								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	21 ##	0.05	0.062	0.2	0.005	0.001	0.038	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	21 ##	0.02	0.029	0.1	0.005	0.001	0.026	0.005	0.005	0.05	0.05

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	23	21.	20.048	34.4	7.	46.106	6.79	8.9	15.	25.	27.5
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	23	9.	9.135	10.8	7.	1.031	1.015	8.	8.4	10.	10.52
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	22	7.2	7.282	9.	6.5	0.26	0.51	6.8	7.	7.5	7.88
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	22	7.2	7.098	9.	6.5	0.295	0.543	6.8	7.	7.5	7.88
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	22	0.063	0.08	0.316	0.001	0.005	0.069	0.015	0.032	0.1	0.158
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	22 ##	0.05	0.061	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	22 ##	0.005	0.006	0.02	0.005	0.	0.004	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	22	0.35	0.366	0.7	0.05	0.023	0.151	0.2	0.3	0.425	0.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	21 ##	50.	154.762	1000.	50.	52476.19	229.077	50.	50.	150.	480.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	21 ##	1.699	1.952	3.	1.699	0.158	0.398	1.699	1.699	2.151	2.68
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				89.514								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	22 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.085
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	22 ##	0.035	0.035	0.1	0.005	0.001	0.03	0.005	0.009	0.05	0.088

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0080

NPS Station ID: RICH0080  
 Location: WALMSLEY BLVD.  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206047  
 RF3 Index: 02080206138400.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: GRINDALL CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.460559/ -77.444642

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-GRK001.73 /VA2-07-X0089/VA2-4X0089  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 2.780  
 RF3 Mile Point: 0.62

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.03

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0080

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	64	17.1	16.294	37.2	0.7	70.276	8.383	5.	9.625	22.65	26.85
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	66	11.2	11.133	16.2	6.4	5.564	2.359	7.54	9.6	12.6	14.06
00310	BOD, 5 DAY, 20 DEG C MG/L	03/29/76-07/26/76	2	6.	6.	9.	3.	18.	4.243	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	64	7.5	7.952	10.39	6.3	1.258	1.122	6.7	7.	9.	9.625
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	64	7.5	7.182	10.39	6.3	1.86	1.364	6.7	7.	9.	9.625
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	64	0.032	0.066	0.501	0.	0.01	0.1	0.	0.001	0.1	0.2
00403	PH, LAB, STANDARD UNITS SU	03/29/76-03/29/76	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/29/76-03/29/76	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/29/76-03/29/76	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00405	CARBON DIOXIDE (MG/L AS CO2)	05/17/78-05/17/78	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	03/29/76-03/29/76	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	60	114.	132.2	695.	60.	7233.756	85.051	83.1	92.5	142.5	181.9
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	60	47.	52.467	175.	4.	863.575	29.387	21.	32.	68.25	97.2
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	59	66.	79.966	611.	10.	6108.137	78.155	39.	52.	82.	111.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	61	5.	22.27	560.	0.	5639.038	75.094	0.5	2.	16.	32.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	61	2.	5.492	80.	0.	119.454	10.93	0.5	1.	6.	11.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	61	2.	16.844	480.	0.	4163.696	64.527	0.	0.5	10.5	24.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	62 ##	0.05	0.178	1.299	0.05	0.069	0.262	0.05	0.05	0.2	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	62 ##	0.005	0.038	1.2	0.005	0.025	0.157	0.005	0.005	0.02	0.037
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	50	0.505	0.558	1.399	0.005	0.158	0.398	0.025	0.195	0.9	1.089
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	62	0.5	0.689	5.099	0.05	0.548	0.74	0.2	0.3	0.8	1.27
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-04/23/79	12	0.375	0.488	1.1	0.025	0.158	0.398	0.025	0.118	0.925	1.07
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	63	13.	14.508	44.	7.	47.125	6.865	10.	11.	15.	19.2
01002	ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3 ##	1.	8.167	23.	0.5	165.083	12.848	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4 ##	5.	3.875	5.	0.5	5.063	2.25	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	10/26/72-11/17/77	9 ##	5.	61.111	500.	5.	27092.361	164.598	5.	5.	10.	500.
01042	COPPER, TOTAL (UG/L AS CU)	10/26/72-11/17/77	9 ##	5.	6.667	20.	5.	25.	5.	5.	5.	5.	20.
01051	LEAD, TOTAL (UG/L AS PB)	10/26/72-11/17/77	9	16.	19.	48.	0.001	222.495	14.916	0.001	10.	28.5	48.
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/17/77	7 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	10/26/72-11/17/77	9	50.	41.111	70.	5.	529.861	23.019	5.	17.5	55.	70.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	62	200.	1151.613	8000.	50.	4340489.159	2083.384	50.	50.	925.	5670.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	62	2.301	2.451	3.903	1.699	4340489.159	0.517	0.719	1.699	1.699	2.966
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	282.744								3.752

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	1	0.	0.	0.	0.	0.	0.	**	0.05	0.05	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	62##	0.05	0.175	2.4	0.05	0.116	0.34	0.05	0.05	0.1	0.4
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	62	0.05	0.096	0.9	0.005	0.032	0.178	0.007	0.018	0.053	0.249
71900	MERCURY, TOTAL (UG/L AS HG)	10/26/72-11/17/77	9##	0.25	0.25	0.25	0.25	0.	0.	0.25	0.25	0.25	0.25

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0080

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	66	0	0.00	19	0	0.00	25	0	0.00	22	0	0.00			
00400	PH	Fresh Chronic	9.	64	19	0.30	19	7	0.37	24	3	0.13	21	9	0.43			
00403	PH, LAB	Other-Lo Lim.	6.5	64	5	0.08	19	0	0.00	24	5	0.21	21	0	0.00			
		Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	62	1	0.02	19	0	0.00	23	1	0.04	20	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	50	0	0.00	17	0	0.00	19	0	0.00	14	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	12	0	0.00	2	0	0.00	4	0	0.00	6	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	63	0	0.00	19	0	0.00	24	0	0.00	20	0	0.00			
		Drinking Water	250.	63	0	0.00	19	0	0.00	24	0	0.00	20	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	50.	3	0	0.00	1	0	0.00				2	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1&	0	0.00	1	0	0.00									
		Drinking Water	5.	1&	0	0.00	1	0	0.00									
01034	CHROMIUM, TOTAL	Drinking Water	100.	8&	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	9	1	0.11	1	0	0.00	4	0	0.00	4	1	0.25			
01051	LEAD, TOTAL	Drinking Water	1300.	9	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00			
		Fresh Acute	82.	9	0	0.00	2	0	0.00	4	0	0.00	3	0	0.00			
		Drinking Water	15.	9	5	0.56	2	1	0.50	4	1	0.25	3	3	1.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00			
		Drinking Water	100.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	9	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00			
		Drinking Water	5000.	9	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	62	35	0.56	18	14	0.78	24	13	0.54	20	8	0.40			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00									
71900	MERCURY, TOTAL	Fresh Acute	2.4	9	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00			
		Drinking Water	2.	9	0	0.00	1	0	0.00	4	0	0.00	4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1972 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	3	12.2	14.067	22.2	7.8	54.453	7.379	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	3	9.8	9.	10.8	6.4	5.32	2.307	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	3	7.	7.333	8.	7.	0.333	0.577	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	3	7.	7.155	8.	7.	0.381	0.617	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	3	0.1	0.07	0.1	0.01	0.003	0.052	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	3	111.	113.667	144.	86.	846.333	29.092	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	3	35.	31.333	45.	14.	250.333	15.822	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	3	97.	82.333	99.	51.	737.333	27.154	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	3	5.	5.667	12.	0.	36.333	6.028	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	3	4.	3.	5.	0.	7.	2.646	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	3	1.	2.667	7.	0.	14.333	3.786	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	1	0.27	0.27	0.27	0.27	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	1	5.099	5.099	5.099	5.099	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	3	11.	12.	15.	10.	7.	2.646	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	3	200.	883.333	2400.	50.	1730833.333	1315.611	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	3	2.301	2.46	3.38	1.699	0.726	0.852	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	288.45								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	1	2.4	2.4	2.4	2.4	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	9	17.8	16.489	25.6	5.6	55.619	7.458	5.6	9.2	23.3	25.6
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	10	10.9	10.3	13.4	6.6	5.7	2.387	6.7	7.9	12.45	13.32
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	10	6.85	7.14	9.2	6.3	0.725	0.851	6.32	6.5	7.5	9.03
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	10	6.847	6.766	9.2	6.3	0.88	0.938	6.32	6.5	7.5	9.03
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	10	0.142	0.171	0.501	0.001	0.027	0.164	0.004	0.032	0.316	0.483
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	9	114.	181.222	695.	60.	38365.194	195.87	60.	93.	164.	695.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	9	32.	49.556	99.	4.	1229.028	35.057	4.	26.	91.	99.
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	9	82.	131.667	611.	10.	33310.75	182.512	10.	50.5	109.5	611.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	9	8.	72.	560.	1.	33593.	183.284	1.	3.5	26.5	560.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	9	2.	12.	80.	0.	661.5	25.72	0.	1.	8.5	80.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	9	8.	60.	480.	0.	24859.	157.667	0.	2.	18.	480.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	10	0.16	0.412	1.299	0.05	0.245	0.495	0.05	0.088	0.775	1.299
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	10##	0.008	0.023	0.13	0.005	0.001	0.038	0.005	0.005	0.02	0.119
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	10	0.9	1.17	2.599	0.3	0.566	0.753	0.32	0.575	1.924	2.539
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	9	14.	12.889	16.	7.	8.611	2.934	7.	10.5	15.	16.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	10	900.	2250.	6000.	50.	6084444.444	2466.667	50.	237.5	4950.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	10	2.952	2.92	3.778	1.699	0.622	0.789	1.699	2.283	3.692	3.778
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	832.019								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	10##	0.075	0.285	1.1	0.05	0.122	0.35	0.05	0.05	0.45	1.05
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	10	0.075	0.244	0.9	0.04	0.086	0.294	0.041	0.05	0.5	0.86

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	10	13.3	16.22	27.8	7.8	66.8	8.173	7.85	8.75	26.25	27.69
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	10	11.	10.95	14.	6.8	4.114	2.028	7.04	10.175	12.35	13.94
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	10	7.4	7.78	9.3	6.5	1.068	1.034	6.55	7.	9.1	9.28

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	10	7.389	7.149	9.3	6.5	1.511	1.229	6.55	7.	9.1	9.28
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/21/79	10	0.041	0.071	0.316	0.001	0.009	0.096	0.001	0.001	0.1	0.295
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	10	128.	152.2	306.	79.	4798.622	69.272	80.7	108.	195.	298.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	10	57.	57.7	98.	30.	466.456	21.598	30.5	35.75	74.	95.9
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	10	78.5	94.5	233.	44.	3172.944	56.329	44.5	55.	121.	223.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	10	12.	31.5	197.	1.	3528.722	59.403	1.	1.75	29.	180.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	10	6.5	8.3	29.	1.	80.233	8.957	1.	1.	12.25	27.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	10	4.	23.2	168.	0.	2654.4	51.521	0.	0.75	18.75	153.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	10	0.1	0.14	0.3	0.05	0.01	0.102	0.05	0.05	0.225	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	10 ##	0.005	0.007	0.01	0.005	0.	0.002	0.005	0.005	0.01	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	10	0.7	0.68	1.	0.4	0.035	0.187	0.41	0.5	0.825	0.99
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	10	12.5	16.	44.	8.	106.889	10.339	8.2	11.5	16.25	41.6
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	10	250.	965.	6000.	50.	3351694.444	1830.763	50.	50.	1175.	5540.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	10	2.389	2.444	3.778	1.699	0.504	0.71	1.699	1.699	3.068	3.715
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			278.15								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	10 ##	0.05	0.07	0.2	0.05	0.002	0.048	0.05	0.05	0.063	0.19
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	10 ##	0.05	0.065	0.2	0.05	0.002	0.047	0.05	0.05	0.05	0.185

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	12	18.35	17.458	26.1	6.1	45.932	6.777	7.27	10.55	23.625	25.95
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	12	11.1	11.125	14.6	7.4	4.795	2.19	7.82	9.05	12.55	14.48
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	12	7.35	7.725	10.	6.5	1.177	1.085	6.65	7.	8.375	9.85
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	12	7.347	7.149	10.	6.5	1.538	1.24	6.65	7.	8.375	9.85
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/21/79	12	0.045	0.071	0.316	0.	0.008	0.088	0.	0.005	0.1	0.251
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	9	114.	123.111	216.	73.	1811.611	42.563	73.	95.	142.	216.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	9	57.	70.333	175.	18.	2394.75	48.936	18.	32.	98.5	175.
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	9	54.	52.778	66.	35.	103.444	10.171	35.	45.	61.5	66.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	9	10.	15.111	48.	2.	238.361	15.439	2.	4.	24.	48.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	9	6.	6.333	14.	2.	23.5	4.848	2.	2.	11.5	14.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	9	4.	8.778	34.	0.	126.944	11.267	0.	2.	15.	34.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	10 ##	0.075	0.135	0.5	0.05	0.02	0.142	0.05	0.05	0.2	0.47
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	10 ##	0.005	0.01	0.03	0.005	0.	0.009	0.005	0.005	0.013	0.029
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	10	0.35	0.4	0.8	0.2	0.031	0.176	0.21	0.3	0.45	0.78
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	11	12.	13.545	32.	7.	44.073	6.639	7.4	11.	14.	29.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	11	200.	1186.364	6000.	50.	4569545.455	2137.65	50.	50.	900.	5780.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/21/79	11	2.301	2.438	3.778	1.699	0.576	0.759	1.699	1.699	2.954	3.761
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			274.303								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	10 ##	0.05	0.09	0.3	0.05	0.006	0.077	0.05	0.05	0.1	0.28
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	10 ##	0.05	0.041	0.1	0.005	0.001	0.028	0.006	0.01	0.05	0.095

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	5	18.9	19.22	37.2	3.9	144.857	12.036	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	6	12.2	12.317	15.6	10.3	3.242	1.8	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	5	9.5	9.	10.	7.5	1.375	1.173	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	5	9.5	8.074	10.	7.5	2.446	1.564	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/21/79	5	0.	0.008	0.032	0.	0.	0.014	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	7	129.	123.286	144.	97.	279.905	16.73	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	7	53.	54.286	75.	38.	144.905	12.038	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	7	69.	69.	87.	49.	171.667	13.102	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	7##	0.5	1.929	10.	0.5	12.702	3.564	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	7##	0.5	0.429	0.5	0.	0.036	0.189	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	7##	0.5	1.857	10.	0.5	12.893	3.591	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	7##	0.05	0.057	0.1	0.05	0.	0.019	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	7##	0.005	0.007	0.01	0.005	0.	0.003	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	7	0.5	0.407	0.7	0.05	0.054	0.232	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	7	14.	14.286	25.	10.	25.905	5.09	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	6##	75.	141.667	400.	50.	19416.667	139.344	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	6##	1.849	2.	2.602	1.699	0.145	0.381	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			100.									
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	7##	0.05	0.064	0.1	0.05	0.001	0.024	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	7	0.02	0.02	0.03	0.01	0.	0.008	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	11	17.5	15.473	32.	1.1	114.81	10.715	1.42	3.4	24.	31.3
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	11	12.9	12.555	16.2	8.4	4.879	2.209	8.64	11.4	14.	15.8
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	11	9.	8.722	10.39	7.	1.346	1.16	7.1	7.5	9.75	10.292
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	11	9.	7.743	10.39	7.	2.4	1.549	7.1	7.5	9.75	10.292
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	11	0.001	0.018	0.1	0.	0.001	0.031	0.	0.	0.032	0.086
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	10	121.	122.3	163.	85.	843.344	29.04	85.2	90.	151.	161.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	10	46.	56.	100.	21.	737.778	27.162	22.1	32.75	81.75	99.
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	10	68.	66.3	107.	24.	678.678	26.051	25.5	47.25	82.75	106.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	11	5.	10.545	49.	2.	193.873	13.924	2.2	4.	15.	43.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	11	3.	3.818	8.	2.	3.564	1.888	2.	2.	5.	7.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	11	2.	6.727	43.	0.	163.418	12.784	0.	0.	11.	36.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	11##	0.05	0.2	0.9	0.05	0.074	0.273	0.05	0.05	0.3	0.82
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	11	0.01	0.042	0.34	0.005	0.01	0.099	0.005	0.005	0.02	0.278
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	11	0.3	0.536	1.799	0.2	0.21	0.459	0.22	0.3	0.7	1.599
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	10	13.5	17.6	41.	10.	111.822	10.575	10.	11.5	20.25	40.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	10	100.	420.	1900.	50.	469555.556	685.241	50.	50.	600.	1860.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	10	2.	2.173	3.279	1.699	0.368	0.606	1.699	1.699	2.652	3.268
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			148.862									
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	11	0.1	0.186	0.6	0.05	0.039	0.198	0.05	0.05	0.3	0.58
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	11	0.06	0.178	0.8	0.005	0.068	0.26	0.005	0.01	0.27	0.746

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	9	17.5	17.078	31.	0.7	82.267	9.07	0.7	11.25	24.	31.
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	9	10.2	10.5	16.	6.8	7.465	2.732	6.8	8.35	12.1	16.
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	9	7.5	8.	9.2	7.	0.685	0.828	7.	7.5	9.	9.2
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	9	7.5	7.565	9.2	7.	0.898	0.947	7.	7.5	9.	9.2
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	9	0.032	0.027	0.1	0.001	0.001	0.031	0.001	0.001	0.032	0.1
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	8	99.	112.875	203.	87.	1481.839	38.495	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	8	37.5	40.75	69.	26.	208.5	14.44	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	7	67.	73.	151.	20.	1555.667	39.442	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	8	4.5	13.125	60.	2.	387.554	19.686	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	8	2.5	3.375	12.	0.	15.982	3.998	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	8	3.	9.813	48.	0.	259.996	16.124	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	9##	0.05	0.122	0.5	0.05	0.023	0.15	0.05	0.05	0.15	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	9	0.01	0.024	0.06	0.005	0.	0.022	0.005	0.005	0.045	0.06
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	9	0.4	0.567	1.3	0.2	0.153	0.391	0.2	0.2	0.85	1.3
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	9	14.	13.556	17.	10.	7.028	2.651	10.	11.	16.	17.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	8	300.	1268.75	8000.	50.	7430669.643	2725.925	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	8	2.477	2.564	3.903	1.699	0.421	0.649	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	366.284								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	9	0.1	0.144	0.3	0.05	0.01	0.098	0.05	0.075	0.25	0.3
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	9	0.02	0.033	0.1	0.005	0.001	0.033	0.005	0.008	0.06	0.1

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### Annual Analysis for 1979 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	5	12.	12.1	20.5	5.	51.55	7.18	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	5	11.6	11.06	14.	6.8	7.508	2.74	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	4	7.95	8.025	9.5	6.7	1.449	1.204	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	4	7.75	7.23	9.5	6.7	2.292	1.514	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	4	0.018	0.059	0.2	0.	0.009	0.095	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	4	85.5	85.25	92.	78.	36.917	6.076	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	4	26.	33.	59.	21.	322.667	17.963	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	4	61.5	52.25	67.	19.	498.25	22.322	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	4##	1.25	2.	5.	0.5	4.5	2.121	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	4##	0.75	1.5	4.	0.5	2.833	1.683	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	4##	0.75	0.75	1.	0.5	0.083	0.289	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	4##	0.05	0.05	0.05	0.05	0.05	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	4##	0.008	0.305	1.2	0.005	0.356	0.597	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	4	0.35	0.325	0.4	0.2	0.009	0.096	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	4	13.5	13.75	18.	10.	12.25	3.5	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	4	150.	2087.5	8000.	50.	15540625.	3942.16	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	4	2.151	2.476	3.903	1.699	0.966	0.983	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	299.07								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	4##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	4	0.01	0.011	0.02	0.005	0.	0.006	**	**	**	**

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### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	19	22.8	22.358	32.	2.7	40.163	6.337	14.4	20.	26.1	31.
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	19	9.2	9.595	14.6	6.4	6.201	2.49	6.6	7.4	11.	14.
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	19	8.	8.257	10.39	6.7	1.415	1.189	6.9	7.	9.2	10.
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	19	8.	7.4	10.39	6.7	2.19	1.48	6.9	7.	9.2	10.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	19	0.01	0.04	0.2	0.	0.003	0.057	0.	0.001	0.1	0.126
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	18	111.	116.	203.	60.	1605.529	40.069	71.7	82.75	145.75	185.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	18	35.5	40.944	107.	4.	573.114	23.94	16.6	25.75	52.25	78.2
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	18	68.	75.056	151.	45.	770.644	27.76	48.6	51.75	88.25	120.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	18	4.	8.722	60.	0.5	186.889	13.671	0.5	2.5	9.5	20.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	18	2.	3.028	12.	0.	12.514	3.537	0.	0.5	4.25	11.1
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	18	2.	5.75	48.	0.	120.331	10.97	0.45	0.875	5.75	14.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	19 ##	0.05	0.116	0.6	0.05	0.025	0.158	0.05	0.05	0.1	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	19 ##	0.005	0.011	0.05	0.005	0.	0.012	0.005	0.005	0.01	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	17	0.26	0.291	0.98	0.01	0.084	0.291	0.022	0.028	0.455	0.876
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	19	0.5	0.618	2.599	0.05	0.33	0.575	0.2	0.3	0.8	1.3
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	19	13.	12.947	20.	9.	8.164	2.857	10.	10.	15.	16.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	18	450.	1986.111	8000.	50.	7053472.222	2655.837	95.	175.	3900.	6200.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	18	2.651	2.807	3.903	1.699	0.526	0.725	1.97	2.226	3.573	3.791
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	641.071								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	11/27/72-04/23/79	19 ##	0.05	0.126	0.6	0.05	0.02	0.143	0.05	0.05	0.2	0.3
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	19	0.03	0.069	0.5	0.005	0.013	0.115	0.005	0.01	0.05	0.2

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	25	9.	9.444	20.	0.7	27.853	5.278	2.48	5.3	12.2	17.62
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	25	11.4	11.456	16.	6.8	4.053	2.013	8.26	10.6	12.6	14.08
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	24	7.35	7.35	9.2	6.3	0.63	0.793	6.5	6.775	7.5	9.
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	24	7.347	6.935	9.2	6.3	0.81	0.9	6.5	6.775	7.5	9.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	24	0.045	0.116	0.501	0.001	0.019	0.136	0.001	0.032	0.175	0.316
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	22	120.	160.818	695.	83.	17244.346	131.318	85.6	95.75	157.75	283.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	22	45.	54.	175.	14.	1277.238	35.738	21.	31.75	72.25	95.6
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	22	72.	106.818	611.	41.	14308.442	119.618	49.	61.75	101.	203.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	23	5.	41.978	560.	0.	14429.488	120.123	0.5	1.	17.	137.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	23	3.	7.935	80.	0.	285.166	16.887	0.2	1.	6.	22.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	23	1.	34.109	480.	0.	10692.431	103.404	0.	0.	12.	118.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	23	0.12	0.271	1.299	0.05	0.124	0.351	0.05	0.05	0.3	0.979
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	23	0.01	0.068	1.2	0.005	0.062	0.248	0.005	0.005	0.02	0.102
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	19	0.9	0.861	1.399	0.005	0.102	0.32	0.42	0.69	1.089	1.289
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	23	0.6	0.865	5.099	0.2	1.072	1.035	0.3	0.3	0.8	1.96
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	24	14.	16.25	44.	7.	89.065	9.437	9.	11.25	15.75	37.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	24	250.	1014.583	6000.	50.	2875104.167	1695.613	50.	50.	1075.	4750.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	24	2.389	2.438	3.778	1.699	0.545	0.738	1.699	1.699	3.031	3.676
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	274.047								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-04/23/79	23 ##	0.05	0.274	2.4	0.05	0.277	0.526	0.05	0.05	0.3	0.9
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	23	0.05	0.157	0.9	0.005	0.068	0.261	0.007	0.01	0.1	0.692

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/21/79	20	18.5	19.095	37.2	8.9	53.022	7.282	9.55	13.5	23.975	28.43
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/21/79	22	12.	12.095	16.2	8.8	4.039	2.01	9.04	10.825	13.55	15.18
00400	PH (STANDARD UNITS)	09/26/72-06/21/79	21	8.4	8.364	10.	6.8	1.263	1.124	7.	7.4	9.5	9.87
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/21/79	21	8.4	7.503	10.	6.8	2.043	1.429	7.	7.4	9.5	9.87
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/21/79	21	0.004	0.031	0.158	0.	0.002	0.045	0.	0.	0.041	0.1
00500	RESIDUE, TOTAL (MG/L)	09/26/72-04/23/79	20	116.	115.3	172.	78.	469.063	21.658	87.2	98.	128.75	137.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-04/23/79	20	57.5	61.15	100.	26.	549.292	23.437	30.3	42.	78.5	98.9
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-04/23/79	19	57.	53.526	108.	10.	617.485	24.849	19.	35.	74.	80.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-04/23/79	20	5.	11.8	48.	0.5	172.984	13.152	0.65	2.25	20.	30.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-04/23/79	20	3.	4.9	16.	0.	22.489	4.742	0.5	1.	8.	13.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-04/23/79	20	2.	6.975	34.	0.	80.197	8.955	0.05	0.625	12.	19.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-04/23/79	20 ##	0.05	0.13	0.9	0.05	0.037	0.194	0.05	0.05	0.1	0.29
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-04/23/79	20	0.01	0.029	0.34	0.005	0.005	0.074	0.005	0.005	0.02	0.039
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-03/07/79	14	0.49	0.469	1.089	0.025	0.115	0.338	0.025	0.17	0.745	0.994
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-04/23/79	20	0.5	0.555	1.799	0.2	0.145	0.38	0.2	0.3	0.7	1.149
00940	CHLORIDE, TOTAL IN WATER MG/L	09/26/72-04/23/79	20	12.	13.9	32.	7.	31.568	5.619	10.	11.	15.	24.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	20	100.	565.	8000.	50.	3098184.211	1760.166	50.	50.	275.	770.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/21/79	20	2.	2.148	3.903	1.699	0.313	0.559	1.699	1.699	2.433	2.883
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	140.512								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	11/27/72-04/23/79	20 ##	0.05	0.108	0.5	0.05	0.012	0.112	0.05	0.05	0.1	0.29
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-04/23/79	20 ##	0.05	0.054	0.27	0.005	0.003	0.057	0.01	0.02	0.05	0.115

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0081

NPS Station ID: RICH0081  
 Location: HOPKINS ROAD BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206047  
 RF3 Index: 02080206004700.19  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: FALLING CREEK SECTION: 07A TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.460892/ -77.466254

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 2-FAC003.67 /VA2-07AX0080/VA2-4X0080  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 3.470  
 RF3 Mile Point: 0.53

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.04

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0081

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	65	16.5	16.151	32.2	0.8	73.493	8.573	3.78	8.05	24.4	26.7
00300 OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	65	9.	9.331	16.	1.	5.49	2.343	7.24	7.95	10.6	12.08
00400 PH (STANDARD UNITS)	03/30/73-06/21/79	65	7.2	7.208	9.5	6.4	0.246	0.496	6.66	6.95	7.5	7.58
00400 CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	65	7.2	7.018	9.5	6.4	0.283	0.532	6.66	6.95	7.5	7.58
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/73-06/21/79	65	0.063	0.096	0.398	0.	0.007	0.086	0.027	0.032	0.113	0.22
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	62 ##	0.05	0.099	0.4	0.05	0.008	0.087	0.05	0.05	0.1	0.27
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	62 ##	0.005	0.01	0.28	0.005	0.001	0.035	0.005	0.005	0.005	0.01
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/30/73-03/07/79	50	0.135	0.205	3.1	0.005	0.187	0.432	0.025	0.048	0.23	0.349
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	63	0.4	0.478	1.599	0.05	0.09	0.299	0.2	0.3	0.6	0.8
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/23/77-06/21/79	13	0.12	0.125	0.39	0.01	0.015	0.121	0.016	0.025	0.145	0.374
00900 HARDNESS, TOTAL (MG/L AS CACO3)	10/20/77-10/20/77	1	0.8	0.8	0.8	0.	0.	0.	**	**	**	**
01002 ARSENIC, TOTAL (UG/L AS AS)	08/04/73-06/23/77	3 ##	1.	0.833	1.	0.5	0.083	0.289	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	08/04/73-11/17/77	4 ##	5.	3.875	5.	0.5	5.063	2.25	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	05/29/73-11/17/77	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	05/29/73-11/17/77	7 ##	5.	15.714	80.	5.	803.571	28.347	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	08/04/73-11/17/77	6 ##	5.5	6.25	14.	1.	25.175	5.017	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	05/29/73-11/17/77	6 ##	50.	50.	50.	0.	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	05/29/73-11/17/77	7	10.	14.286	40.	5.	153.571	12.392	**	**	**	**
31616 FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	62 ##	50.	175.	2200.	50.	135963.115	368.732	50.	50.	100.	300.
31616 LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	62 ##	1.699	1.914	3.342	1.699	0.173	0.415	1.699	1.699	2.	2.477
31616 GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	82.039								
50060 CHLORINE, TOTAL RESIDUAL (MG/L)	07/11/74-07/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	63 ##	0.05	0.062	0.2	0.01	0.001	0.039	0.05	0.05	0.05	0.1
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	62 ##	0.02	0.037	0.4	0.005	0.003	0.053	0.005	0.009	0.05	0.05
71900 MERCURY, TOTAL (UG/L AS HG)	05/29/73-11/17/77	7 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0081

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	65	1	0.02	19	0	0.00	23	1	0.04	23	0	0.00
00400 PH	Fresh Chronic	9.	65	1	0.02	19	0	0.00	23	0	0.00	23	1	0.04
	Other-Lo Lim.	6.5	65	5	0.08	19	1	0.05	23	3	0.13	23	1	0.04
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	62	0	0.00	19	0	0.00	21	0	0.00	22	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	50	0	0.00	17	0	0.00	18	0	0.00	15	0	0.00
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	13	0	0.00	2	0	0.00	4	0	0.00	7	0	0.00
01002 ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00	1	0	0.00				2	0	0.00
	Drinking Water	50.	3	0	0.00	1	0	0.00				2	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00	1	0	0.00				2	0	0.00
	Drinking Water	5.	1 &	0	0.00	1	0	0.00				2	0	0.00
01034 CHROMIUM, TOTAL	Drinking Water	100.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	7	1	0.14	1	0	0.00	2	0	0.00	4	1	0.25
01051 LEAD, TOTAL	Drinking Water	1300.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00
	Fresh Acute	82.	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00
01065 NICKEL, DISSOLVED	Drinking Water	15.	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00
	Fresh Acute	1400.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00
01092 ZINC, TOTAL	Drinking Water	100.	6	0	0.00	1	0	0.00	1	0	0.00	4	0	0.00
	Fresh Acute	120.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Drinking Water	5000.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00
50060 CHLORINE, TOTAL RESIDUAL	Other-Hi Lim.	200.	62	13	0.21	18	4	0.22	22	6	0.27	22	3	0.14
71900 MERCURY, TOTAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00				4	0	0.00
	Fresh Acute	2.4	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00
	Drinking Water	2.	7	0	0.00	1	0	0.00	2	0	0.00	4	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1973 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	10	18.35	18.39	26.7	3.3	58.121	7.624	4.19	13.025	25.425	26.7
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	10	8.5	9.24	14.	7.6	3.883	1.97	7.6	7.9	10.15	13.66
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	10	6.95	7.01	8.	6.5	0.148	0.384	6.53	6.875	7.025	7.91
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	10	6.947	6.906	8.	6.5	0.16	0.4	6.53	6.875	7.025	7.91
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	10	0.113	0.124	0.316	0.01	0.006	0.078	0.017	0.095	0.134	0.3
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	10 ##	0.05	0.1	0.3	0.05	0.007	0.085	0.05	0.05	0.125	0.29
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.006	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	10	0.55	0.66	1.599	0.3	0.149	0.386	0.3	0.45	0.775	1.539
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	10 ##	50.	330.	1600.	50.	287333.333	536.035	50.	50.	475.	1540.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	10 ##	1.699	2.088	3.204	1.699	0.349	0.591	1.699	1.699	2.608	3.184
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			122.322								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	10 ##	0.05	0.065	0.2	0.05	0.002	0.047	0.05	0.05	0.05	0.185
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	10 ##	0.05	0.065	0.1	0.05	0.001	0.024	0.05	0.05	0.05	0.1

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	11	10.	14.7	27.2	6.7	75.634	8.697	6.7	7.2	25.6	27.1
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	11	9.6	9.2	12.	5.8	4.4	2.098	6.	7.	10.6	12.
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.2	7.1	7.5	6.5	0.11	0.332	6.54	6.8	7.4	7.5
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.2	6.979	7.5	6.5	0.126	0.355	6.54	6.8	7.4	7.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	11	0.063	0.105	0.316	0.032	0.008	0.088	0.032	0.04	0.158	0.293
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	11 ##	0.05	0.109	0.3	0.05	0.009	0.097	0.05	0.05	0.1	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	11 ##	0.005	0.005	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.009
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	11	0.5	0.491	0.8	0.3	0.025	0.158	0.3	0.4	0.6	0.78
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11 ##	50.	131.818	900.	50.	65136.364	255.218	50.	50.	50.	740.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11 ##	1.699	1.84	2.954	1.699	0.145	0.38	1.699	1.699	2.763	
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			69.255								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	11 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	11 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	12	20.55	17.742	26.1	6.7	51.824	7.199	6.7	10.275	24.475	25.95
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	12	9.	9.517	12.8	7.6	3.08	1.755	7.66	7.85	10.9	12.56
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	12	7.05	7.042	7.5	6.5	0.086	0.294	6.53	6.85	7.275	7.44
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	12	7.047	6.945	7.5	6.5	0.097	0.311	6.53	6.85	7.275	7.44
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	12	0.09	0.114	0.316	0.032	0.008	0.087	0.037	0.053	0.144	0.297
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	10	0.1	0.085	0.1	0.05	0.001	0.024	0.05	0.05	0.1	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	10 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	10	0.4	0.42	0.8	0.2	0.042	0.204	0.2	0.2	0.6	0.78
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11 ##	50.	263.636	2200.	50.	414545.455	643.852	50.	50.	100.	1800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11 ##	1.699	1.93	3.342	1.699	0.256	0.506	1.699	1.699	2.	3.134
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			85.207								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	10 ##	0.075	0.095	0.2	0.05	0.004	0.06	0.05	0.05	0.125	0.2
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	10 ##	0.04	0.034	0.05	0.01	0.	0.018	0.01	0.018	0.05	0.05

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	8	23.3	21.163	32.2	3.9	76.557	8.75	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	8	8.85	9.012	10.8	7.4	1.544	1.243	**	**	**	**
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	8	7.4	7.45	8.5	7.	0.266	0.515	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	8	7.389	7.267	8.5	7.	0.304	0.551	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	8	0.041	0.054	0.1	0.003	0.002	0.04	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	7##	0.05	0.1	0.4	0.05	0.018	0.132	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	8##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	8	0.45	0.519	1.399	0.05	0.171	0.414	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	7##	50.	171.429	600.	50.	40714.286	201.778	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	7##	1.699	2.025	2.778	1.699	0.191	0.437	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			105.963									
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	8##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	7##	0.005	0.013	0.04	0.005	0.	0.013	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	11	10.	11.518	25.	1.1	79.554	8.919	1.16	2.6	20.	24.2
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	11	9.8	8.918	14.4	1.	14.146	3.761	1.68	7.4	11.	14.04
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.5	7.345	8.3	6.5	0.225	0.474	6.56	6.9	7.5	8.14
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	11	7.5	7.115	8.3	6.5	0.283	0.532	6.56	6.9	7.5	8.14
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	11	0.032	0.077	0.316	0.005	0.008	0.092	0.01	0.032	0.126	0.285
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	11##	0.05	0.115	0.4	0.05	0.012	0.111	0.05	0.05	0.2	0.36
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	10##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.006	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	11	0.3	0.404	1.299	0.05	0.128	0.358	0.06	0.2	0.4	1.199
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11##	50.	86.364	300.	50.	7045.455	83.937	50.	50.	50.	280.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	11##	1.699	1.824	2.477	1.699	0.079	0.282	1.699	1.699	1.699	2.442
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			66.749									
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	11##	0.065	0.05	0.2	0.01	0.002	0.049	0.018	0.05	0.05	0.18
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	11##	0.005	0.045	0.4	0.005	0.014	0.118	0.005	0.005	0.01	0.328

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	8	17.	16.85	28.	0.8	86.251	9.287	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	8	8.25	9.4	16.	6.8	9.534	3.088	**	**	**	**
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	8	7.3	7.538	9.5	7.	0.697	0.835	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	8	7.289	7.245	9.5	7.	0.795	0.891	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	8	0.051	0.057	0.1	0.	0.002	0.04	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	8##	0.075	0.1	0.3	0.05	0.007	0.085	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	8##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	8	0.4	0.463	0.9	0.2	0.071	0.267	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	8##	50.	87.5	300.	50.	7678.571	87.627	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	8##	1.699	1.834	2.477	1.699	0.079	0.28	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			68.213									
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	8##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	8##	0.008	0.011	0.02	0.005	0.	0.007	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	5	12.	12.1	24.	4.	73.05	8.547	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	5	10.	10.66	12.2	9.2	1.828	1.352	**	**	**	**
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	5	7.2	7.02	7.5	6.4	0.207	0.455	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	5	7.2	6.828	7.5	6.4	0.253	0.503	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	5	0.063	0.148	0.398	0.032	0.024	0.155	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	5 ##	0.05	0.06	0.1	0.05	0.001	0.022	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	5 ##	0.005	0.06	0.28	0.005	0.015	0.123	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	5	0.3	0.32	0.5	0.2	0.012	0.11	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	4 ##	50.	87.5	200.	50.	5625.	75.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	4 ##	1.699	1.849	2.301	1.699	0.091	0.301	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			70.711								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	5 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	5	0.01	0.012	0.02	0.01	0.	0.004	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	19	24.4	22.489	28.3	2.6	35.794	5.983	14.4	21.	26.7	28.
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	19	8.	7.847	10.6	4.4	1.958	1.399	5.8	7.4	8.6	10.4
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	19	7.2	7.279	8.5	6.5	0.224	0.473	6.8	7.	7.5	8.
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	19	7.2	7.094	8.5	6.5	0.26	0.51	6.8	7.	7.5	8.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	19	0.063	0.08	0.316	0.003	0.005	0.072	0.01	0.032	0.1	0.158
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	18	0.1	0.139	0.4	0.05	0.015	0.124	0.05	0.05	0.225	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	19 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	19	0.6	0.608	1.599	0.05	0.157	0.396	0.2	0.3	0.8	1.399
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	18 ##	50.	155.556	1000.	50.	62026.144	249.05	50.	50.	125.	640.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	18 ##	1.699	1.932	3.	1.699	0.164	0.405	1.699	1.699	2.075	2.8
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =			85.418					
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	19 ##	0.05	0.066	0.2	0.05	0.001	0.037	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	18 ##	0.04	0.034	0.1	0.005	0.001	0.025	0.005	0.009	0.05	0.055

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	23	6.7	7.643	16.7	0.8	23.215	4.818	1.22	3.9	12.	15.84
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	23	11.	10.843	16.	1.	8.367	2.893	8.	9.6	12.2	14.24
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	23	7.	7.083	8.3	6.4	0.197	0.444	6.5	6.7	7.4	7.5
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	23	7.	6.904	8.3	6.4	0.23	0.48	6.5	6.7	7.4	7.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	23	0.1	0.125	0.398	0.005	0.012	0.109	0.032	0.04	0.2	0.316
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	22	0.085	0.099	0.3	0.05	0.006	0.074	0.05	0.05	0.1	0.27
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	21 ##	0.005	0.019	0.28	0.005	0.004	0.06	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	22	0.35	0.393	0.9	0.05	0.038	0.195	0.2	0.275	0.5	0.67
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	22 ##	50.	259.091	2200.	50.	297056.277	545.029	50.	50.	200.	1210.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	22 ##	1.699	1.995	3.342	1.699	0.246	0.496	1.699	1.699	2.301	2.986
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =			98.839					
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	22 ##	0.05	0.064	0.2	0.01	0.002	0.046	0.05	0.05	0.05	0.17
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	22 ##	0.015	0.045	0.4	0.005	0.007	0.083	0.005	0.009	0.05	0.085

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/73-06/21/79	23	20.	19.422	32.2	8.9	39.745	6.304	9.4	15.	25.	26.92
00300	OXYGEN, DISSOLVED MG/L	03/30/73-06/21/79	23	8.8	9.043	12.	7.	1.623	1.274	7.48	7.9	10.	10.6
00400	PH (STANDARD UNITS)	03/30/73-06/21/79	23	7.2	7.274	9.5	6.5	0.311	0.558	6.84	7.	7.5	7.5
00400	CONVERTED PH (STANDARD UNITS)	03/30/73-06/21/79	23	7.2	7.099	9.5	6.5	0.343	0.586	6.84	7.	7.5	7.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	03/30/73-06/21/79	23	0.063	0.08	0.316	0.	0.004	0.065	0.032	0.032	0.1	0.145
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/73-06/21/79	22 ##	0.05	0.066	0.2	0.05	0.001	0.036	0.05	0.05	0.063	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/30/73-06/21/79	22 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/30/73-06/21/79	22	0.4	0.45	1.299	0.1	0.068	0.261	0.2	0.3	0.5	0.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	22 ##	50.	106.818	900.	50.	35070.346	187.271	50.	50.	50.	270.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	03/30/73-06/21/79	22 ##	1.699	1.819	2.954	1.699	0.106	0.326	1.699	1.699	1.699	2.424
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =			65.882					
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/30/73-06/21/79	22 ##	0.05	0.057	0.2	0.05	0.001	0.032	0.05	0.05	0.05	0.05
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/30/73-06/21/79	22 ##	0.02	0.03	0.1	0.005	0.001	0.026	0.005	0.005	0.05	0.05

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0082

NPS Station ID: RICH0082  
 Location: FALLING CREEK NEAR DREWRY'S BLUFF, VA  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080206  
 RF3 Index: 02080206171902.11  
 Description:

LAT/LON: 37.461115/ -77.466670

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 0.000

RF3 Mile Point: 2.65

Agency: 112WRD  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 02038500  
 Within Park Boundary: No

Date Created: / /

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 17.40  
 Distance from RF3: 0.02

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0082

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/09/69-05/09/69	1	17.	17.	17.	0.	0.	0.	**	**	**	**
00060 FLOW, STREAM, MEAN DAILY CFS	07/30/45-05/09/69	45	65.	81.333	446.	1.	5885.273	76.716	10.6	26.5	115.5	152.8
00080 COLOR (PLATINUM-COBALT UNITS)	07/30/45-05/09/69	45	13.	17.022	63.	5.	133.068	11.535	6.2	9.	24.	30.4
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/06/52-05/09/69	5	63.	75.2	139.	51.	1310.2	36.197	**	**	**	**
00400 PH (STANDARD UNITS)	07/30/45-05/09/69	44	6.6	6.605	7.4	6.1	0.146	0.382	6.1	6.3	6.975	7.1
00400 CONVERTED PH (STANDARD UNITS)	07/30/45-05/09/69	44	6.6	6.46	7.4	6.1	0.167	0.409	6.1	6.3	6.975	7.1
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/30/45-05/09/69	44	0.251	0.347	0.794	0.04	0.068	0.26	0.079	0.106	0.501	0.794
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	05/09/69-05/09/69	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00440 BICARBONATE ION (MG/L AS HCO3)	07/30/45-05/09/69	45	12.	13.556	36.	6.	41.662	6.455	7.	8.	18.	20.2
00445 CARBONATE ION (MG/L AS CO3)	05/09/69-05/09/69	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00650 PHOSPHATE, TOTAL (MG/L AS PO4)	05/09/69-05/09/69	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	07/30/45-05/09/69	45	13.	13.289	38.	10.	19.165	4.378	10.	11.	14.	16.
00902 HARDNESS, NON-CARBONATE (MG/L AS CACO3)	01/14/48-05/09/69	8	0.5	2.5	9.	0.	11.714	3.423	**	**	**	**
00915 CALCIUM, DISSOLVED (MG/L AS CA)	07/30/45-05/09/69	45	3.1	3.298	13.	2.2	2.542	1.595	2.4	2.6	3.4	3.78
00925 MAGNESIUM, DISSOLVED (MG/L AS MG)	07/30/45-05/09/69	45	1.2	1.24	1.7	0.8	0.042	0.206	1.	1.1	1.4	1.5
00930 SODIUM, DISSOLVED (MG/L AS NA)	07/30/45-05/09/69	45	4.4	4.442	7.4	2.7	1.091	1.044	3.26	3.6	5.05	6.02
00931 SODIUM ADSORPTION RATIO	05/09/69-05/09/69	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00932 SODIUM, PERCENT	05/09/69-05/09/69	1	27.	27.	27.	27.	0.	0.	**	**	**	**
00935 POTASSIUM, DISSOLVED (MG/L AS K)	10/01/45-05/09/69	10	1.4	1.65	3.5	0.6	0.823	0.907	0.62	0.95	2.25	3.42
00940 CHLORIDE, TOTAL IN WATER MG/L	07/30/45-05/09/69	45	4.	3.778	11.	2.	1.768	1.33	3.	3.	4.	4.
00945 SULFATE, TOTAL (MG/L AS SO4)	07/30/45-05/09/69	45	6.	6.444	14.	2.	3.753	1.937	4.	5.	7.5	8.
00950 FLUORIDE, DISSOLVED (MG/L AS F)	07/30/45-05/09/69	45	0.1	0.144	0.8	0.	0.015	0.122	0.	0.1	0.2	0.2
00955 SILICA, DISSOLVED (MG/L AS SI02)	07/30/45-05/09/69	45	12.	12.778	18.	8.1	6.253	2.501	9.72	11.	14.5	16.4
01046 IRON, DISSOLVED (UG/L AS FE)	05/09/69-05/09/69	1	370.	370.	370.	370.	0.	0.	**	**	**	**
70300 RESIDUE, TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/30/45-05/09/69	45	46.	47.022	93.	38.	74.022	8.604	39.6	41.5	51.	52.4
70301 SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/09/69-05/09/69	1	83.	83.	83.	83.	0.	0.	**	**	**	**
70302 SOLIDS, DISSOLVED-TONS PER DAY	05/09/69-05/09/69	1	2.51	2.51	2.51	2.51	0.	0.	**	**	**	**
70303 SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/09/69-05/09/69	1	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
71835 OXYGEN CONSUMED, FILTERED MG/L	10/01/45-09/21/46	36	3.45	3.411	5.2	1.8	0.891	0.944	2.17	2.6	3.975	4.83
71840 OXYGEN CONSUMED, UNFILTERED MG/L	10/01/45-09/21/46	36	3.95	4.161	6.4	2.6	1.221	1.105	2.7	3.325	4.975	6.2
71851 NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	07/30/45-05/09/69	45	0.2	0.307	1.7	0.1	0.083	0.289	0.1	0.2	0.35	0.64
71885 IRON (UG/L AS FE)	07/30/45-01/11/56	44	40.	129.318	550.	10.	27992.548	167.31	10.	20.	215.	455.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0082

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs
00400 PH	Fresh Chronic	9.	44	0	0.00	15	0	0.00	17	0	0.00	12	0	0.00	
	Other-Lo Lim.	6.5	44	19	0.43	15	4	0.27	17	11	0.65	12	4	0.33	
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	45	0	0.00	15	0	0.00	17	0	0.00	13	0	0.00	
	Drinking Water	250.	45	0	0.00	15	0	0.00	17	0	0.00	13	0	0.00	
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	45	0	0.00	15	0	0.00	17	0	0.00	13	0	0.00	
00950 FLUORIDE, DISSOLVED AS F	Drinking Water	4.	45	0	0.00	15	0	0.00	17	0	0.00	13	0	0.00	
71851 NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	45	0	0.00	15	0	0.00	17	0	0.00	13	0	0.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0082

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00060	FLOW, STREAM, MEAN DAILY CFS	07/30/45-05/09/69	15	21.	39.667	117.	1.	1557.381	39.464	2.2	11.	64.	115.2
00080	COLOR (PLATINUM-COBALT UNITS)	07/30/45-05/09/69	15	25.	24.867	63.	8.	188.552	13.731	8.6	12.	30.	46.8
00400	PH (STANDARD UNITS)	07/30/45-05/09/69	15	6.8	6.74	7.3	6.1	0.155	0.394	6.1	6.3	7.1	7.18
00400	CONVERTED PH (STANDARD UNITS)	07/30/45-05/09/69	15	6.8	6.569	7.3	6.1	0.187	0.432	6.1	6.3	7.1	7.18
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/30/45-05/09/69	15	0.158	0.27	0.794	0.05	0.066	0.256	0.068	0.079	0.501	0.794
00440	BICARBONATE ION (MG/L AS HCO3)	07/30/45-05/09/69	15	18.	17.6	29.	7.	29.971	5.475	10.	14.	19.	27.8
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/30/45-05/09/69	15	14.	14.867	20.	13.	4.267	2.066	13.	14.	15.	19.4
00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/30/45-05/09/69	15	3.4	3.613	5.2	3.2	0.323	0.568	3.2	3.3	3.6	4.9
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/30/45-05/09/69	15	1.4	1.407	1.7	1.2	0.031	0.175	1.2	1.2	1.5	1.7
00930	SODIUM, DISSOLVED (MG/L AS NA)	07/30/45-05/09/69	15	4.4	4.347	5.5	3.2	0.503	0.709	3.32	3.7	5.	5.32
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/45-05/09/69	15	4.	3.467	4.	2.	0.41	0.64	2.6	3.	4.	4.
00945	SULFATE, TOTAL (MG/L AS SO4)	07/30/45-05/09/69	15	5.	5.267	10.	2.	3.067	1.751	3.2	4.	6.	8.2
00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/30/45-05/09/69	15	0.1	0.127	0.3	0.	0.006	0.08	0.	0.1	0.2	0.24
00955	SILICA, DISSOLVED (MG/L AS SI02)	07/30/45-05/09/69	15	15.	14.32	17.	9.8	4.793	2.189	11.12	12.	16.	17.
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), MG/L	07/30/45-05/09/69	15	51.	50.8	59.	46.	10.457	3.234	46.6	48.	52.	56.
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	07/30/45-05/09/69	15	0.2	0.367	1.	0.2	0.07	0.264	0.2	0.2	0.5	0.88
71885	IRON (UG/L AS FE)	07/30/45-01/11/56	15	120.	214.667	550.	10.	38640.952	196.573	10.	30.	380.	532.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0082

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00060	FLOW, STREAM, MEAN DAILY CFS	07/30/45-05/09/69	17	89.	114.412	446.	23.	9647.757	98.223	26.2	65.5	135.5	258.8
00080	COLOR (PLATINUM-COBALT UNITS)	07/30/45-05/09/69	17	10.	12.235	45.	5.	89.066	9.437	5.	6.	13.	25.
00400	PH (STANDARD UNITS)	07/30/45-05/09/69	17	6.3	6.418	7.2	6.1	0.11	0.332	6.1	6.15	6.65	7.04
00400	CONVERTED PH (STANDARD UNITS)	07/30/45-05/09/69	17	6.3	6.325	7.2	6.1	0.119	0.345	6.1	6.15	6.65	7.04
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/30/45-05/09/69	17	0.501	0.473	0.794	0.063	0.066	0.256	0.093	0.225	0.713	0.794
00440	BICARBONATE ION (MG/L AS HCO3)	07/30/45-05/09/69	17	9.	10.412	19.	6.	20.007	4.473	6.	7.	13.5	18.2
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/30/45-05/09/69	17	11.	11.176	13.	10.	1.154	1.074	10.	10.	12.	13.
00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/30/45-05/09/69	17	2.7	2.741	3.7	2.2	0.158	0.397	2.28	2.45	3.	3.38
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/30/45-05/09/69	17	1.1	1.082	1.3	0.8	0.017	0.129	0.96	1.	1.2	1.3
00930	SODIUM, DISSOLVED (MG/L AS NA)	07/30/45-05/09/69	17	4.6	4.629	6.4	3.1	1.242	1.115	3.26	3.55	5.75	6.24
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/45-05/09/69	17	4.	3.882	7.	3.	0.86	0.928	3.	3.	4.	4.6
00945	SULFATE, TOTAL (MG/L AS SO4)	07/30/45-05/09/69	17	7.	6.882	9.	4.	1.985	1.409	4.8	5.5	8.	8.2
00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/30/45-05/09/69	17	0.1	0.118	0.2	0.	0.005	0.073	0.	0.1	0.2	0.2
00955	SILICA, DISSOLVED (MG/L AS SI02)	07/30/45-05/09/69	17	11.	11.835	18.	8.1	8.315	2.884	8.18	9.7	13.5	16.4
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), MG/L	07/30/45-05/09/69	17	41.	43.118	50.	38.	16.36	4.045	38.	40.	46.5	49.2
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	07/30/45-05/09/69	17	0.2	0.235	0.6	0.1	0.017	0.132	0.1	0.15	0.3	0.44
71885	IRON (UG/L AS FE)	07/30/45-01/11/56	17	30.	115.294	530.	10.	27576.471	166.062	10.	20.	175.	490.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0082

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00060	FLOW, STREAM, MEAN DAILY CFS	07/30/45-05/09/69	13	61.	86.154	205.	10.	3153.308	56.154	19.6	48.5	132.5	187.
00080	COLOR (PLATINUM-COBALT UNITS)	07/30/45-05/09/69	13	15.	14.231	23.	7.	31.359	5.6	7.4	9.	18.	23.
00400	PH (STANDARD UNITS)	07/30/45-05/09/69	12	6.75	6.7	7.4	6.1	0.124	0.352	6.16	6.425	6.95	7.28
00400	CONVERTED PH (STANDARD UNITS)	07/30/45-05/09/69	12	6.747	6.577	7.4	6.1	0.14	0.374	6.16	6.425	6.95	7.28
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/30/45-05/09/69	12	0.179	0.265	0.794	0.04	0.045	0.213	0.058	0.115	0.378	0.706
00440	BICARBONATE ION (MG/L AS HCO3)	07/30/45-05/09/69	13	11.	13.	36.	7.	56.333	7.506	7.4	8.5	15.	28.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/30/45-05/09/69	13	12.	14.231	38.	10.	53.359	7.305	10.4	11.	13.5	29.2
00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/30/45-05/09/69	13	2.8	3.662	13.	2.4	8.029	2.834	2.44	2.6	3.2	9.36
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/30/45-05/09/69	13	1.2	1.254	1.5	0.9	0.028	0.166	0.98	1.15	1.4	1.46

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0082

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00930	SODIUM, DISSOLVED (MG/L AS NA)	07/30/45-05/09/69	13	4.	4.308	7.4	2.7	1.676	1.295	2.86	3.35	5.05	6.8
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/45-05/09/69	13	3.	4	11.	3.	4.667	2.16	3.	4.	8.2	
00945	SULFATE, TOTAL (MG/L AS SO4)	07/30/45-05/09/69	13	7.	7.231	14.	5.	4.859	2.204	5.4	6.	7.5	11.6
00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/30/45-05/09/69	13	0.2	0.2	0.8	0.1	0.035	0.187	0.1	0.1	0.2	0.56
00955	SILICA, DISSOLVED (MG/L AS SI02)	07/30/45-05/09/69	13	12.	12.231	14.	11.	1.692	1.301	11.	11.	14.	14.
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/30/45-05/09/69	13	43.	47.769	93.	39.	197.359	14.048	39.4	42.	47.5	76.6
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	07/30/45-05/09/69	13	0.2	0.331	1.7	0.1	0.189	0.435	0.1	0.1	0.4	1.22
71885	IRON (UG/L AS FE)	07/30/45-01/11/56	12	20.	42.5	140.	10.	1675.	40.927	10.	12.5	72.5	125.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0083

NPS Station ID: RICH0083	LAT/LON: 37.462781/ -77.466392	Agency: 21VASWCB	Date Created: 08/26/89
Location: NEAR DAM-FALLING CREEK RESEVOIR CHESTERFIELD CO.		FIPS State/County: 51041 VIRGINIA/CHESTERFIELD	
Station Type: /TYP/A/MBNT/LAKE		STORET Station ID(s): 2-FAC003.85	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080207	Depth of Water: 0	Aquifer:	
Major Basin: 02-NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: 2-JAMES		ECO Region:	
RF1 Index: 02080207	RF1 Mile Point: 0.000	Distance from RF1: 1.10	On/Off RF1:
RF3 Index: 02080207027003.01	RF3 Mile Point: 3.51	Distance from RF3: 0.00	On/Off RF3:
Description:			
VIRGINIA STATE WATER CONTROL BOARD	AMBIENT MONITORING	BASIN: 2 JAMES	REGION: 4 PIEDMONT
RIVER: FALLING CREEK	SECTION: 071	TOPO MAP #: 0132	TOPO MAP NAME: DREWRY'S BLUFF, VA

## Parameter Inventory for Station: RICH0083

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/29/80-08/08/94	29	19.5	18.634	26.6	9.	27.963	5.288	11.	13.85	23.1	26.
00070	TURBIDITY, (JACKSON CANDLE UNITS)	08/14/89-08/14/89	1	7.4	7.4	7.4	0.	0.	**	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	04/29/80-08/08/94	8	0.8	0.875	1.4	0.5	0.096	0.311	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	04/29/80-08/14/89	9	89.	91.889	145.	66.	534.361	23.116	66.	76.	99.	145.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/08/94-08/08/94	1	74.	74.	74.	0.	0.	**	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	08/14/89-08/08/94	8	0.95	3.663	10.2	0.1	19.583	4.425	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/29/80-08/14/89	23	0.5	3.104	10.4	0.2	15.4	3.924	0.24	0.3	7.3	10.32
00340	COD, 25N K2CR2O7 MG/L	08/08/94-08/08/94	1	20.	20.	20.	0.	0.	**	**	**	**	**
00400	PH (STANDARD UNITS)	04/29/80-08/08/94	19	6.9	7.158	9.	6.2	0.737	0.858	6.3	6.5	8.	8.6
00400	CONVERTED PH (STANDARD UNITS)	04/29/80-08/08/94	19	6.9	6.712	9.	6.2	0.947	0.973	6.3	6.5	8.	8.6
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/29/80-08/08/94	19	0.126	0.194	0.631	0.001	0.035	0.187	0.003	0.01	0.316	0.501
00403	PH, LAB, STANDARD UNITS SU	04/29/80-08/14/89	10	7.	7.02	8.	6.6	0.173	0.416	6.6	6.675	7.2	7.92
00403	CONVERTED PH, LAB, STANDARD UNITS	04/29/80-08/14/89	10	6.989	6.892	8.	6.6	0.191	0.437	6.6	6.675	7.2	7.92
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/29/80-08/14/89	10	0.103	0.128	0.251	0.01	0.007	0.084	0.015	0.063	0.212	0.251
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/80-08/08/94	10	20.	25.3	61.	15.	177.789	13.334	15.3	18.	27.5	57.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/80-09/09/80	9	9.	9.111	18.	2.5	23.799	4.878	2.5	4.75	12.	18.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/29/80-09/09/80	9	5.	5.	10.	1.	9.938	3.152	1.	2.25	7.5	10.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/29/80-09/09/80	9	5.	4.667	10.	0.	11.438	3.382	0.	1.75	7.5	10.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/80-08/08/94	11##	0.05	0.213	1.9	0.02	0.313	0.56	0.02	0.05	0.05	1.53
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/29/80-08/08/94	8##	0.005	0.01	0.03	0.005	0.	0.01	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	08/14/89-08/08/94	2##	0.02	0.02	0.02	0.	0.	**	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/80-08/08/94	11	0.5	0.664	2.7	0.4	0.459	0.677	0.4	0.4	0.5	2.26
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/29/80-08/14/89	10##	0.038	0.875	7.96	0.025	6.21	2.492	0.025	0.025	0.2	7.205
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/80-08/08/94	11	0.02	0.025	0.04	0.02	0.	0.007	0.02	0.02	0.03	0.038
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/29/80-09/09/80	8	0.01	0.011	0.03	0.005	0.	0.008	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/94-08/08/94	1	6.7	6.7	6.7	6.7	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	08/08/94-08/08/94	1	20.	20.	20.	20.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/08/94-08/08/94	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	08/26/80-08/14/89	3	12.1	11.3	14.8	7.	15.69	3.961	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/08/94-08/08/94	1##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01028	CADMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	08/26/80-08/14/89	3##	0.075	0.212	0.5	0.06	0.062	0.25	**	**	**	**
01029	CHROMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	08/26/80-08/14/89	3	20.3	23.133	31.	18.1	47.623	6.901	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/08/94-08/08/94	1##	25.	25.	25.	25.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0083

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01042	COPPER, TOTAL (UG/L AS CU)	08/08/94-08/08/94	1 ##	25.	25.	25.	25.	0.	11.024	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	08/26/80-08/14/89	3	34.7	40.3	53.	33.2	121.53	263.461	0.21	0.3	6.75	754.8
01045	IRON, TOTAL (UG/L AS FE)	04/29/80-08/08/94	10	0.8	86.47	836.	0.2	69411.653	263.461	0.21	0.3	6.75	754.8
01051	LEAD, TOTAL (UG/L AS PB)	08/08/94-08/08/94	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	08/26/80-08/14/89	3	68.	69.733	76.	65.2	31.413	5.605	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/29/80-08/08/94	10	0.1	7.756	71.	0.04	494.815	22.244	0.041	0.065	2.025	64.2
01067	NICKEL, TOTAL (UG/L AS NI)	08/08/94-08/08/94	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	08/26/80-08/14/89	3	10.6	11.48	14.	9.84	4.907	2.215	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	08/08/94-08/08/94	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	08/26/80-08/14/89	3	107.	111.	123.	103.	112.	10.583	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	08/08/94-08/08/94	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/29/80-08/08/94	5 ##	50.	151.8	600.	9.	63091.2	251.18	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	04/29/80-08/08/94	5 ##	1.699	1.766	2.778	0.954	0.424	0.651	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		58.326									
32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	04/29/80-08/08/94	9	21.1	23.489	53.5	9.3	239.744	15.484	9.3	10.75	35.2	53.5
32211	CHLOROPHYLL-A UG/L SPECTROPHOTOMETRIC ACID, METH.	08/08/94-08/08/94	1	37.6	37.6	37.6	0.	0.	**	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID, METH.	08/08/94-08/08/94	1	24.8	24.8	24.8	24.8	0.	0.	**	**	**	**
32219	PHEOPHYTIN RATIO(OD 663)SPECTRO, BEFORE/AFTER ACID	08/08/94-08/08/94	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
34671	PCB - 1016 TOTWUG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	08/14/89-08/08/94	2 ##	12.503	12.503	25.	0.005	312.375	17.674	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/08/94-08/08/94	1 ##	40.	40.	40.	40.	0.	0.	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	08/08/94-08/08/94	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	08/14/89-08/08/94	2 ##	25.25	25.25	50.	0.5	1225.125	35.002	**	**	**	**
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/14/89-08/08/94	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/14/89-08/08/94	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	08/14/89-08/08/94	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39492	PCB - 1322 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	08/14/89-08/08/94	2 ##	5.003	5.003	10.	0.005	49.95	7.068	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	08/08/94-08/08/94	1 ##	0.25	0.25	0.25	0.25	0.25	0.	0.	**	**	**
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	08/14/89-08/08/94	2 ##	253.75	253.75	500.	7.5	121278.125	348.25	**	**	**	**
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	08/08/94-08/08/94	1	21.	21.	21.	21.	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	08/08/94-08/08/94	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	08/08/94-08/08/94	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	08/26/80-08/14/89	3	0.09	0.133	0.3	0.01	0.022	0.15	**	**	**	**
75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	08/14/89-08/14/89	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0083

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	1	0	0.00	1	0	0.00									
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	8	5	0.63	8	5	0.63									
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	23	15	0.65	14	10	0.71									
00400 PH	Fresh Chronic	9.	19	1	0.05	10	1	0.10									
	Other-Lo Lim.	6.5	19	8	0.42	10	4	0.40									
00403 PH, LAB	Fresh Chronic	9.	10	0	0.00	7	0	0.00									
	Other-Lo Lim.	6.5	10	0	0.00	7	0	0.00									
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	8	0	0.00	7	0	0.00									
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	2	0	0.00	2	0	0.00									
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	10	0	0.00	7	0	0.00									
01002 ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00	1	0	0.00									
	Drinking Water	50.	1	0	0.00	1	0	0.00									
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00	1	0	0.00									
	Drinking Water	5.	1	0	0.00	1	0	0.00									
01034 CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00	1	0	0.00									
01042 COPPER, TOTAL	Fresh Acute	18.	0&	0	0.00												
	Drinking Water	1300.	1	0	0.00	1	0	0.00									
01051 LEAD, TOTAL	Fresh Acute	82.	1	0	0.00	1	0	0.00									
	Drinking Water	15.	1	0	0.00	1	0	0.00									
01067 NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00	1	0	0.00									
01092 ZINC, TOTAL	Drinking Water	100.	1	0	0.00	1	0	0.00									
01147 SELENIUM, TOTAL	Fresh Acute	120.	1	0	0.00	1	0	0.00									
	Drinking Water	5000.	1	0	0.00	1	0	0.00									
	Fresh Acute	20.	1	0	0.00	1	0	0.00									
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Drinking Water	50.	1	0	0.00	1	0	0.00									
34356 ENDOSULFAN, BETA, TOTAL	Other-Hi Lim.	200.	5	1	0.20	3	0	0.00									
34361 ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1&	0	0.00	1	0	0.00									
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	0.22	1&	0	0.00	1	0	0.00									
	Drinking Water	20.	2	0	0.00	2	0	0.00									
39300 P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.	1&	0	0.00	1	0	0.00									
39310 P,P'DDD IN WHOLE WATER SAMPLE	Fresh Acute	1.1	1&	0	0.00	1	0	0.00									
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	0.6	1&	0	0.00	1	0	0.00									
39330 ALDRIN IN WHOLE WATER SAMPLE	Drinking Water	1050.	2	0	0.00	2	0	0.00									
39340 GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	3.	1&	0	0.00	1	0	0.00									
	Drinking Water	2.	1&	0	0.00	1	0	0.00									
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	0.73	1&	0	0.00	1	0	0.00									
	Drinking Water	2.4	1	0	0.00	1	0	0.00									
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.	1	0	0.00	1	0	0.00									
39390 ENDRIN IN WHOLE WATER SAMPLE	Drinking Water	2.5	1&	0	0.00	1	0	0.00									
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.18	1&	0	0.00	1	0	0.00									
	Drinking Water	2.	1&	0	0.00	1	0	0.00									
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1&	0	0.00	1	0	0.00									
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Drinking Water	0.4	1&	0	0.00	1	0	0.00									
71900 MERCURY, TOTAL	Fresh Acute	0.52	1&	0	0.00	1	0	0.00									
	Drinking Water	0.2	1&	0	0.00	1	0	0.00									
	Fresh Acute	2.4	1	0	0.00	1	0	0.00									
	Drinking Water	2.	1	0	0.00	1	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0084

NPS Station ID: RICH0084  
 Location: WHITE OAK SWAMP AT RT 156 AT ELKO, VA  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080206  
 RF3 Index: 02080206156700.00  
 Description:

LAT/LON: 37.468060/ -77.208892

Agency: 112WRD  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 02042455  
 Within Park Boundary: No

Date Created: 01/26/85

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.40  
 Distance from RF3: 0.01

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0084

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/04/91	11	20.	19.955	25.	12.	15.723	3.965	12.9	16.5	23.	25.
00020 TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/04/91	8	22.75	21.188	26.5	9.	33.067	5.75	**	**	**	**
00025 BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/04/91	7	754.	754.714	765.	746.	45.238	6.726	**	**	**	**
00061 FLOW, STREAM, INSTANTANEOUS CFS	09/11/84-09/13/89	11	7.	9.73	37.	0.025	112.37	10.6	0.42	2.	16.	32.8
00080 COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/04/91	7	100.	89.857	140.	0.	2296.81	47.925	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/04/91	11	66.	64.091	79.	48.	94.091	9.7	48.8	56.	72.	78.
03000 OXYGEN, DISSOLVED MG/L	04/08/87-09/04/91	7	5.4	5.886	8.3	2.2	5.391	2.322	**	**	**	**
04040 PH (STANDARD UNITS)	04/08/87-09/04/91	7	6.	5.987	6.8	5.5	0.184	0.429	**	**	**	**
04040 CONVERTED PH (STANDARD UNITS)	04/08/87-09/04/91	7	6.	5.85	6.8	5.5	0.206	0.454	**	**	**	**
04040 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/04/91	7	1.	1.414	3.162	0.158	1.036	1.018	**	**	**	**
04043 PH, LAB, STANDARD UNITS SU	04/08/87-09/13/89	6	6.7	6.867	8.	6.3	0.351	0.592	**	**	**	**
04043 CONVERTED PH, LAB, STANDARD UNITS	04/08/87-09/13/89	6	6.689	6.665	8.	6.3	0.4	0.632	**	**	**	**
04043 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/13/89	6	0.205	0.216	0.501	0.01	0.028	0.166	**	**	**	**
00556 OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC,MG/L	09/04/91-09/04/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/11/84-09/13/89	7	0.02	0.031	0.09	0.01	0.001	0.027	**	**	**	**
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/04/91-09/04/91	1	0.024	0.024	0.024	0.024	0.	0.	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/11/84-09/04/91	8	0.65	0.65	0.9	0.4	0.031	0.177	**	**	**	**
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/04/91-09/04/91	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00631 NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/11/84-09/13/89	7	0.05	0.069	0.2	0.02	0.004	0.063	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	09/11/84-09/04/91	8	0.031	0.028	0.044	0.005	0.	0.014	**	**	**	**
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/13/89	6	0.012	0.013	0.02	0.006	0.	0.005	**	**	**	**
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/11/84-09/13/89	7	0.005	0.005	0.01	0.001	0.	0.003	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	09/11/84-09/04/91	8	11.5	11.275	15.	6.7	9.448	3.074	**	**	**	**
00915 CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/13/89	6	5.55	5.983	9.6	3.6	5.49	2.343	**	**	**	**
00925 MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/13/89	6	0.9	0.85	1.	0.7	0.015	0.122	**	**	**	**
00930 SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/13/89	6	5.1	5.217	6.3	4.4	0.634	0.796	**	**	**	**
00935 POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/13/89	6	0.8	0.9	1.8	0.3	0.384	0.62	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/04/91	7	8.	7.571	10.	5.	3.619	1.902	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/04/91	7	9.	8.071	14.	0.5	26.036	5.103	**	**	**	**
00950 FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/13/89	6	0.1	0.083	0.1	0.05	0.001	0.026	**	**	**	**
00955 SILICA, DISSOLVED (MG/L AS SI02)	04/08/87-09/13/89	6	5.25	5.35	9.	2.9	5.683	2.384	**	**	**	**
01002 ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/04/91	5	1.	0.8	1.	0.5	0.075	0.274	**	**	**	**
01025 CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	2 ##	1.75	1.75	3.	0.5	3.125	1.768	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/04/91	5 ##	0.5	1.3	3.	0.5	1.325	1.151	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/04/91	5	3.	3.1	5.	0.5	2.8	1.673	**	**	**	**
01037 COBALT, TOTAL (UG/L AS CO)	04/12/88-09/13/89	4 ##	1.25	1.5	3.	0.5	1.5	1.225	**	**	**	**
01040 COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	2	5.	5.	9.	1.	32.	5.657	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	04/12/88-09/04/91	5	6.	7.	11.	4.	11.	3.317	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0084

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
0045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/04/91	7	1800.	2015.714	4400.	810.	1274061.905	1128.744	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/04/91	7	890.	812.857	1400.	380.	122090.476	349.414	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	2##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/04/91	5##	2.5	6.5	20.	2.5	58.125	7.624	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/04/91	7	50.	60.	170.	20.	2633.333	51.316	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/04/91	7	43.	52.571	160.	11.	2582.286	50.816	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/04/91	5	3.	3.5	7.	0.5	5.5	2.345	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	2	28.5	28.5	39.	18.	220.5	14.849	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/04/91	5	10.	34.	130.	5.	2917.5	54.014	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/13/89	4##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	09/04/91-09/04/91	1	2.	2.	2.	2.	0.	0.	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/13/89	4	81.5	76.25	91.	51.	304.917	17.462	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	09/04/91-09/04/91	1	0.021	0.021	0.021	0.021	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	2##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/04/91	5##	0.05	0.13	0.4	0.05	0.023	0.152	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/04/91	5	8.	7.8	10.	6.	2.2	1.483	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0084

Parameter	Std. Type	Std. Value	Total	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs			Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	7	1	0.14	4	1	0.25			3	0	0.00			
00400	PH	Fresh Chronic	9.	7	0	0.00	4	0	0.00			3	0	0.00			
00403	PH, LAB	Other-Lo Lim.	6.5	7	6	0.86	4	4	1.00			3	2	0.67			
		Fresh Chronic	9.	6	0	0.00	3	0	0.00			3	0	0.00			
		Other-Lo Lim.	6.5	6	1	0.17	3	1	0.33			3	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00	1	0	0.00			3	0	0.00			
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	7	0	0.00	4	0	0.00			3	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	7	0	0.00	4	0	0.00			3	0	0.00			
		Drinking Water	250.	7	0	0.00	4	0	0.00			3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	7	0	0.00	4	0	0.00			3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	6	0	0.00	3	0	0.00			3	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	5	0	0.00	3	0	0.00			2	0	0.00			
		Drinking Water	50.	5	0	0.00	3	0	0.00			2	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	2	0	0.00	1	0	0.00			1	0	0.00			
		Drinking Water	5.	2	0	0.00	1	0	0.00			1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	5	0	0.00	3	0	0.00			2	0	0.00			
		Drinking Water	5.	5	0	0.00	3	0	0.00			2	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	5	0	0.00	3	0	0.00			2	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00			1	0	0.00			
		Drinking Water	1300.	2	0	0.00	1	0	0.00			1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	5	0	0.00	3	0	0.00			2	0	0.00			
		Drinking Water	1300.	5	0	0.00	3	0	0.00			2	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00			1	0	0.00			
		Drinking Water	15.	2	0	0.00	1	0	0.00			1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	5	0	0.00	3	0	0.00			2	0	0.00			
		Drinking Water	15.	5	1	0.20	3	1	0.33			2	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	5	0	0.00	3	0	0.00			2	0	0.00			
		Drinking Water	100.	5	0	0.00	3	0	0.00			2	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	1	0	0.00			1	0	0.00			
		Drinking Water	5000.	2	0	0.00	1	0	0.00			1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	5	1	0.20	3	1	0.33			2	0	0.00			
		Drinking Water	5000.	5	0	0.00	3	0	0.00			2	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	4	0	0.00	2	0	0.00			2	0	0.00			
		Drinking Water	50.	4	0	0.00	2	0	0.00			2	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	1	0	0.00			1	0	0.00			
		Drinking Water	2.	2	0	0.00	1	0	0.00			1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	5	0	0.00	3	0	0.00			2	0	0.00			
		Drinking Water	2.	5	0	0.00	3	0	0.00			2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0085

NPS Station ID: RICH0085  
 Location: WHITE OAK SWAMP, RT. 156 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: WHITE OAK SWAMP SECTION: 04 TOPO MAP #: 0141 TOPO MAP NAME: ROXBURY, VA

LAT/LON: 37.468337/ -77.208892

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-WOS002.69  
 Within Park Boundary: No

Date Created: 09/14/96

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0085

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/19/94-12/14/98	34	15.05	15.312	25.4	4.3	44.65	6.682	6.25	8.95	21.65	24.7
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	05/29/96-12/14/98	32	9.55	9.381	17.2	2.8	12.189	3.491	5.	6.6	10.825	14.68
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/19/94-12/14/98	33	70.	74.667	117.	41.	295.854	17.2	53.8	63.	86.	98.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/29/96-12/14/98	32	70.	70.625	105.	43.	190.306	13.795	53.	61.25	79.75	88.2
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	34	7.4	7.597	11.5	4.7	4.175	2.043	5.1	5.8	9.625	10.7
00310 BOD, 5 DAY, 20 DEG C MG/L	05/29/96-12/14/98	32 ##	1.	1.484	5.	0.5	1.379	1.174	0.5	0.5	2.	3.
00340 COD, 25N K2CR2O7 MG/L	05/29/96-12/14/98	32	26.	27.906	56.	10.	109.959	10.486	13.5	21.	35.	42.7
00400 PH (STANDARD UNITS)	07/19/94-12/14/98	34	6.18	6.122	6.49	5.29	0.072	0.268	5.74	5.975	6.333	6.42
00400 CONVERTED PH (STANDARD UNITS)	07/19/94-12/14/98	34	6.18	6.023	6.49	5.29	0.082	0.286	5.74	5.975	6.333	6.42
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/19/94-12/14/98	34	0.661	0.948	5.129	0.324	0.777	0.882	0.38	0.465	1.059	1.824
00403 PH, LAB, STANDARD UNITS SU	05/29/96-12/14/98	32	6.5	6.531	7.2	5.9	0.067	0.258	6.2	6.4	6.7	6.8
00403 CONVERTED PH, LAB, STANDARD UNITS	05/29/96-12/14/98	32	6.5	6.456	7.2	5.9	0.073	0.27	6.2	6.4	6.7	6.8
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/29/96-12/14/98	32	0.316	0.35	1.259	0.063	0.055	0.234	0.158	0.2	0.398	0.631
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	05/29/96-12/14/98	32	13.	13.156	23.	4.	27.362	5.231	6.3	9.	16.75	21.
00500 RESIDUE, TOTAL (MG/L)	05/29/96-12/14/98	32	72.5	73.594	106.	52.	182.701	13.517	56.3	61.25	84.75	89.7
00505 RESIDUE, TOTAL VOLATILE (MG/L)	05/29/96-12/14/98	31	36.	33.258	50.	13.	70.531	8.398	20.2	28.	40.	42.6
00510 RESIDUE, TOTAL FIXED (MG/L)	05/29/96-12/14/98	31	41.	40.871	68.	18.	146.516	12.104	25.	32.	47.	59.6
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/29/96-12/14/98	31	7.	7.194	19.	1.5	16.211	4.026	3.	5.	8.	13.8
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/29/96-12/14/98	31 ##	1.5	2.452	5.	1.5	1.189	1.091	1.5	1.5	3.	4.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	05/29/96-12/14/98	31	4.	4.581	16.	1.5	11.252	3.354	1.5	1.5	5.	10.
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/29/96-12/14/98	32 ##	0.02	0.031	0.11	0.02	0.	0.022	0.02	0.02	0.04	0.06
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	05/29/96-12/14/98	32 ##	0.005	0.006	0.02	0.005	0.	0.003	0.005	0.005	0.005	0.01
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	05/29/96-12/14/98	32	0.125	0.149	0.45	0.02	0.01	0.1	0.04	0.04	0.073	0.215
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/29/96-12/14/98	32	0.5	0.609	1.8	0.3	0.078	0.28	0.33	0.425	0.7	0.87
00665 PHOSPHORUS, TOTAL (MG/L AS P)	05/29/96-12/14/98	32	0.04	0.042	0.07	0.02	0.	0.014	0.03	0.03	0.05	0.067
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	05/29/96-08/22/96	4	12.95	14.125	19.7	10.9	15.029	3.877	**	**	**	**
00687 CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	11/10/97-11/10/97	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	05/29/96-12/14/98	32	21.	20.688	29.	12.	13.706	3.702	15.	19.	22.75	26.
00940 CHLORIDE, TOTAL IN WATER MG/L	05/29/96-12/14/98	32	8.	7.984	11.	2.5	3.008	1.734	6.	7.	9.75	10.
00945 SULFATE, TOTAL (MG/L AS SO4)	05/29/96-12/14/98	32 ##	2.75	4.844	17.	2.5	13.104	3.62	2.5	2.5	6.	11.4
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS DRY WGT)	11/10/97-11/10/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01013 BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	11/10/97-11/10/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01028 CADMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	11/10/97-11/10/97	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0085

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
0029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	11/10/97-11/10/97	1	9.31	9.31	9.31	9.31	0.	0.	**	**	**	**
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	11/10/97-11/10/97	1	8.35	8.35	8.35	8.35	0.	0.	**	**	**	**
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	11/10/97-11/10/97	1	18.79	18.79	18.79	18.79	0.	0.	**	**	**	**
01053 MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	11/10/97-11/10/97	1	46.92	46.92	46.92	46.92	0.	0.	**	**	**	**
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	11/10/97-11/10/97	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01078 SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	11/10/97-11/10/97	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	11/10/97-11/10/97	1	15.21	15.21	15.21	15.21	0.	0.	**	**	**	**
01098 ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	11/10/97-11/10/97	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01108 ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	11/10/97-11/10/97	1	4480.	4480.	4480.	4480.	0.	0.	**	**	**	**
01148 SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	11/10/97-11/10/97	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01170 IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	11/10/97-11/10/97	1	5720.	5720.	5720.	5720.	0.	0.	**	**	**	**
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	05/29/96-12/14/98	32	420.	1352.125	16000.	9.	8562343.661	2926.148	71.	130.	1247.5	3500.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	05/29/96-12/14/98	32	2.622	2.612	4.204	0.954	0.469	0.685	1.85	2.114	3.084	3.544
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		408.982									
34480 THALLIUM DRY WGTBOTMG/KG	11/10/97-11/10/97	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39061 PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	11/10/97-11/10/97	1##	30.	30.	30.	30.	0.	0.	**	**	**	**
39333 ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39351 CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	11/10/97-11/10/97	1##	25.	25.	25.	25.	0.	0.	**	**	**	**
39363 DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39368 DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39373 DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39383 DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	11/10/97-11/10/97	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39393 ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	1##	20.	20.	20.	20.	0.	0.	**	**	**	**
39403 TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	11/10/97-11/10/97	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
39413 HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	11/10/97-11/10/97	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
39526 PCB'S TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	11/10/97-11/10/97	1##	15.	15.	15.	15.	0.	0.	**	**	**	**
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/29/96-12/14/98	32	0.03	0.028	0.05	0.01	0.	0.01	0.02	0.02	0.03	0.04
71921 MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	11/10/97-11/10/97	1##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
75045 HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	11/10/97-11/10/97	1##	5.	5.	5.	5.	0.	0.	**	**	**	**
79799 DICOFOIL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	11/10/97-11/10/97	1##	65.	65.	65.	65.	0.	0.	**	**	**	**
82007 PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	11/10/97-11/10/97	1	79.47	79.47	79.47	79.47	0.	0.	**	**	**	**
82008 SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	11/10/97-11/10/97	1	9.29	9.29	9.29	9.29	0.	0.	**	**	**	**
82009 SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	11/10/97-11/10/97	1	11.24	11.24	11.24	11.24	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0085

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	32	0	0.00	10	0	0.00	13	0	0.00	9	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	34	0	0.00	10	0	0.00	14	0	0.00	10	0	0.00			
00400 PH	Fresh Chronic	9.	34	0	0.00	10	0	0.00	14	0	0.00	10	0	0.00			
00403 PH, LAB	Other-Lo Lim.	6.5	34	34	1.00	10	10	1.00	14	14	1.00	10	10	1.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	32	0	0.00	10	0	0.00	13	0	0.00	9	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	32	0	0.00	10	0	0.00	13	0	0.00	9	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	32	0	0.00	10	0	0.00	13	0	0.00	9	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	32	0	0.00	10	0	0.00	13	0	0.00	9	0	0.00			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	32	21	0.66	10	7	0.70	13	10	0.77	9	4	0.44			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0086

NPS Station ID: RICH0086  
 Location: FOURMILE CREEK, DARBYTOWN RD  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: FOURMILE CREEK SECTION: 02B TOPO MAP #: 0137 TOPO MAP NAME: DUTCH GAP, VA

LAT/LON: 37.472503/ -77.335560

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-FOM006.87  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

## Parameter Inventory for Station: RICH0086

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-06/04/97	3	12.6	12.933	14.2	12.	1.293	1.137	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/07/94-06/04/97	3	47.	48.333	52.	46.	10.333	3.215	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-06/04/97	3	6.7	7.7	10.	6.4	3.99	1.997	**	**	**	**
00400	PH (STANDARD UNITS)	12/07/94-06/04/97	3	5.02	5.063	5.38	4.79	0.088	0.297	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/07/94-06/04/97	3	5.02	5.001	5.38	4.79	0.094	0.307	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/07/94-06/04/97	3	9.55	9.979	16.218	4.169	36.435	6.036	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0086

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	3	0	0.00				1	0	0.00	2	0	0.00			
00400	PH	Fresh Chronic	9.	3	0	0.00				1	0	0.00	2	0	0.00			
		Other-Lo Lim.	6.5	3	3	1.00				1	1	1.00	2	2	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0087

NPS Station ID: RICH0087	LAT/LON: 37.475560/ -77.341392	Agency: 21VASWCB	Date Created: 05/06/95
Location: FOUR MILE CK, LOST COUNTRY DR.ABOVE DARBYTOWN RD		FIPS State/County: 51087 VIRGINIA/HENRICO	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): 2-FOM007.33	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin: 02-NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: 2-JAMES		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:			
VIRGINIA STATE WATER CONTROL BOARD	AMBIENT MONITORING	BASIN: 2- JAMES	REGION: 4 PIEDMONT
RIVER: FOURMILE CREEK	SECTION: 02B	TOPO MAP #: 0137	TOPO MAP NAME: DUTCH GAP, VA

### Parameter Inventory for Station: RICH0087

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/07/94-03/27/95	2	12.55	12.55	12.8	12.3	0.125	0.354	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	12/07/94-03/27/95	2	62.5	62.5	69.	56.	84.5	9.192	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	12/07/94-03/27/95	2	6.05	6.05	8.8	3.3	15.125	3.889	**	**	**	**
00400	PH (STANDARD UNITS)	12/07/94-03/27/95	2	4.125	4.125	4.13	4.12	0.	0.007	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	12/07/94-03/27/95	2	4.125	4.125	4.13	4.12	0.	0.007	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/07/94-03/27/95	2	74.994	74.994	75.858	74.131	1.491	1.221	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0087

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	2	1	0.50				1	1	1.00	1	0	0.00			
00400	PH	Fresh Chronic	9.	2	0	0.00				1	0	0.00	1	0	0.00			
		Other-Lo Lim.	6.5	2	2	1.00				1	1	1.00	1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0088

NPS Station ID: RICH0088	LAT/LON: 37.484170/ -77.268059	Agency: 112WRD	Date Created: 02/01/92
Location: WHITE OAK SWAMP NEAR WHITE OAK SWAMP, VA		FIPS State/County: 51087 VIRGINIA/HENRICO	
Station Type: /TYP/A/AMBNT/STREAM		STORET Station ID(s): 02042450	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin:	Elevation: 0	Water Body Id:	
Minor Basin:		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 1.50	On/Off RF1:
RF3 Index: 02080206006201.68	RF3 Mile Point: 1.67	Distance from RF3: 0.00	On/Off RF3:
Description:			

## Parameter Inventory for Station: RICH0088

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/16/80-08/01/83	5	21.5	21.7	24.5	19.5	3.325	1.823	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/16/80-08/01/83	5	27.	27.1	29.	25.	2.8	1.673	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	07/16/80-08/01/83	5	1.	3.76	14.	0.8	32.988	5.744	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/16/80-08/01/83	5	65.	66.	80.	52.	119.5	10.932	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0089

NPS Station ID: RICH0089  
 Location: BUOY 168  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206046  
 RF3 Index: 02080206004600.54  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.491420/ -77.422560

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS107.04 /VA2-02-X0140/VA2-4X0140  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 4.160  
 RF3 Mile Point: 2.27

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.03

On/Off RF1: ON  
 On/Off RF3:

### Parameter Inventory for Station: RICH0089

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/08/68-09/20/83	75	24.	22.519	30.6	5.6	37.337	6.11	11.6	18.9	26.7	29.
00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-07/16/80	4	10.35	13.175	30.	2.	170.789	13.069	**	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-10/12/83	7 ##	0.275	0.39	1.1	0.23	0.099	0.315	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-09/20/83	14	198.5	201.857	280.	134.	2761.363	52.549	134.5	155.75	256.25	280.
00300	OXYGEN, DISSOLVED MG/L	07/08/68-09/20/83	77	7.8	7.76	13.8	1.	5.223	2.285	5.32	7.	8.85	10.68
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	25	2.	2.576	7.6	0.5	3.446	1.856	1.	1.	3.65	5.8
00340	COD, 25N K2CR2O7 MG/L	05/19/80-06/28/83	13	11.	14.	27.	6.	43.667	6.608	6.	9.5	20.	24.6
00400	PH (STANDARD UNITS)	07/08/68-09/20/83	77	7.5	7.662	9.	6.8	0.271	0.52	7.	7.3	8.	8.5
00400	CONVERTED PH (STANDARD UNITS)	07/08/68-09/20/83	77	7.5	7.418	9.	6.8	0.331	0.576	7.	7.3	8.	8.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/08/68-09/20/83	77	0.032	0.038	0.158	0.001	0.002	0.04	0.003	0.01	0.05	0.1
00403	PH, LAB, STANDARD UNITS SU	03/20/69-05/29/74	6	7.35	7.25	7.4	6.9	0.043	0.207	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-05/29/74	6	7.347	7.204	7.4	6.9	0.046	0.213	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-05/29/74	6	0.045	0.062	0.126	0.04	0.001	0.035	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-09/20/83	8	48.5	51.	79.	30.	329.143	18.142	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/16/83-09/20/83	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00480	SALINITY - PARTS PER THOUSAND	11/18/82-11/18/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	36	115.	120.028	202.	78.	1039.628	32.243	85.	93.5	135.	181.9
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	36	38.5	38.75	95.	18.	226.707	15.057	21.4	29.25	46.	53.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	36	77.5	81.417	170.	0.	1192.536	34.533	46.7	56.	96.5	141.1
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-09/20/83	3	133.	149.667	187.	129.	1049.333	32.393	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-10/12/83	59	8.	13.856	121.	1.	298.121	17.266	2.5	6.	16.	28.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-10/12/83	59	4.	5.025	22.	0.	22.676	4.762	1.	2.	6.	13.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	54	5.5	9.648	104.	0.	235.695	15.352	0.5	2.375	10.25	23.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/20/83	70	0.12	0.204	1.299	0.01	0.051	0.225	0.05	0.05	0.3	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	69	0.005	0.012	0.14	0.	0.	0.02	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	70	0.345	0.403	1.509	0.005	0.109	0.33	0.041	0.185	0.543	0.872
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/16/83-09/20/83	2	0.95	0.95	1.	0.9	0.005	0.071	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/20/83	70	0.4	0.506	2.299	0.05	0.187	0.433	0.2	0.2	0.6	1.
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-09/20/83	2	0.45	0.45	0.6	0.3	0.045	0.212	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-09/20/83	15	0.2	0.205	0.4	0.03	0.014	0.12	0.042	0.1	0.27	0.4
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	08/16/83-09/20/83	2	0.35	0.35	0.4	0.3	0.005	0.071	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-09/20/83	15	0.12	0.156	0.4	0.04	0.012	0.107	0.04	0.1	0.2	0.364
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/19/80-09/20/83	15	5.	6.	11.	3.	5.286	2.299	3.	4.	8.	9.8

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0089

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00900 HARDNESS, TOTAL (MG/L AS CACO3)	05/19/80-05/19/80	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	07/08/72-04/24/79	38	8.	9.	22.	2.	22.595	4.753	4.	5.75	10.25	18.2
01002 ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	5 ##	1.	1.5	2.5	0.5	0.875	0.935	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	7 ##	5.	4.357	5.	0.5	2.893	1.701	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	15 ##	5.	4.8	10.	0.5	7.564	2.75	0.5	5.	5.	10.
01042 COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	15 ##	5.	9.333	40.	5.	88.81	9.424	5.	5.	10.	28.
01051 LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	13 ##	5.	5.654	11.	1.	13.224	3.637	1.	1.75	9.5	10.6
01055 MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	4 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	4 ##	35.	33.75	60.	5.	656.25	25.617	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	15	10.	19.667	100.	5.	640.952	25.317	5.	5.	20.	70.
31505 COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/08/68-09/09/70	13	11000.	915107.692	9300000.	2400.	*****	2547735.9	5840.	11000.	695000.	6020000.
31505 LOG COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/08/68-09/09/70	13	4.041	4.678	6.968	3.38	1.184	1.088	3.645	4.041	5.816	6.598
31505 GM COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)				GEOMETRIC MEAN = 47588.303								
31506 COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-09/20/83	2	161.5	161.5	230.	93.	9384.5	96.874	**	**	**	**
31506 LOG COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-09/20/83	2	2.165	2.165	2.362	1.968	0.077	0.278	**	**	**	**
31506 GM COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.				GEOMETRIC MEAN = 146.253								
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-09/20/83	62	300.	2662.839	76000.	3.	94601644.892	9726.338	50.	50.	1625.	6000.
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-09/20/83	62	2.477	2.585	4.881	0.477	0.747	0.864	1.699	1.699	3.211	3.778
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN = 384.888								
32209 CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/16/83-10/03/83	4	0.65	0.8	1.8	0.1	0.527	0.726	**	**	**	**
32218 PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/16/83-10/03/83	4	0.6	0.8	1.6	0.4	0.293	0.542	**	**	**	**
39330 ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380 DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	05/06/71-05/06/71	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
50060 CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-09/20/83	3	0.	0.067	0.2	0.	0.013	0.115	**	**	**	**
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	55	0.05	0.127	0.8	0.05	0.02	0.14	0.05	0.05	0.1	0.3
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	55	0.05	0.092	0.6	0.005	0.01	0.1	0.02	0.05	0.1	0.204
71900 MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	15 ##	0.25	0.713	7.6	0.15	3.632	1.906	0.15	0.15	0.25	3.19

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0089

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
					Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	4	0	0.00	3	0	0.00	1	0	0.00						
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	77	6	0.08	38	4	0.11	9	0	0.00	30	2	0.07			
00400 PH	Fresh Chronic	9.	77	1	0.01	38	0	0.00	9	0	0.00	30	1	0.03			
00403 PH, LAB	Other-Lo Lim.	6.5	77	0	0.00	38	0	0.00	9	0	0.00	30	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	69	0	0.00	34	0	0.00	8	0	0.00	27	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	70	0	0.00	33	0	0.00	9	0	0.00	28	0	0.00			
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	2	0	0.00	2	0	0.00									
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	38	0	0.00	19	0	0.00	4	0	0.00	15	0	0.00			
	Drinking Water	250.	38	0	0.00	19	0	0.00	4	0	0.00	15	0	0.00			
01002 ARSENIC, TOTAL	Fresh Acute	360.	5	0	0.00				1	0	0.00	4	0	0.00			
	Drinking Water	50.	5	0	0.00				1	0	0.00	4	0	0.00			
01027 CADMIUM, TOTAL	Fresh Acute	3.9	1 &	0	0.00				1	0	0.00						
	Drinking Water	5.	1 &	0	0.00				1	0	0.00						
01034 CHROMIUM, TOTAL	Drinking Water	100.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00			
01042 COPPER, TOTAL	Fresh Acute	18.	15	2	0.13	4	0	0.00	2	1	0.50	9	1	0.11			
01051 LEAD, TOTAL	Drinking Water	1300.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00			
	Fresh Acute	82.	13	0	0.00	4	0	0.00	2	0	0.00	7	0	0.00			
01065 NICKEL, DISSOLVED	Drinking Water	15.	13	0	0.00	4	0	0.00	2	0	0.00	7	0	0.00			
	Fresh Acute	1400.	4	0	0.00				4	0	0.00						
01067 NICKEL, TOTAL	Drinking Water	100.	4	0	0.00				4	0	0.00						
	Fresh Acute	1400.	4	0	0.00				2	0	0.00	2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0089

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01092	ZINC, TOTAL	Fresh Acute	120.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
		Drinking Water	5000.	15	0	0.00	4	0	0.00	2	0	0.00	9	0	0.00
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	13	13	1.00	7	7	1.00				6	6	1.00
31506	COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	2	0	0.00	2	0	0.00						
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	62	37	0.60	30	17	0.57	8	3	0.38	24	17	0.71
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00				1	0	0.00	1	0	0.00
39380	DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	1	0	0.00							1	0	0.00
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	2	0	0.00				1	0	0.00	1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	3	1	0.33	2	1	0.50				1	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	15	1	0.07	5	1	0.20	2	0	0.00	8	0	0.00
		Drinking Water	2.	15	1	0.07	5	1	0.20	2	0	0.00	8	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0089

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/08/68-09/20/83	37	26.5	26.046	30.6	19.4	9.153	3.025	21.1	24.2	28.15	30.
00300	OXYGEN, DISSOLVED MG/L	07/08/68-09/20/83	38	7.3	6.808	9.4	1.	3.856	1.964	2.9	6.6	8.	8.23
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	9	1.	2.811	7.6	0.5	6.161	2.482	0.5	1.	4.6	7.6
00400	PH (STANDARD UNITS)	07/08/68-09/20/83	38	7.5	7.676	8.5	6.8	0.209	0.457	7.	7.475	8.	8.5
00400	CONVERTED PH (STANDARD UNITS)	07/08/68-09/20/83	38	7.5	7.466	8.5	6.8	0.254	0.504	7.	7.475	8.	8.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/08/68-09/20/83	38	0.032	0.034	0.158	0.003	0.001	0.035	0.003	0.01	0.034	0.1
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	10	131.	135.1	202.	92.	1260.1	35.498	92.1	110.25	154.	200.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	10	38.	36.4	46.	24.	57.378	7.575	24.1	30.25	42.5	45.8
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	10	93.	98.7	170.	59.	1179.344	34.342	59.8	73.75	111.5	167.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-10/12/83	27	8.	14.519	121.	2.5	516.528	22.727	2.5	6.	11.	27.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-10/12/83	27	4.	5.778	22.	1.	36.141	6.012	1.	2.5	6.	18.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	22	5.	10.614	104.	1.	460.998	21.471	2.	2.875	8.25	21.1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/20/83	33	0.14	0.233	1.299	0.05	0.066	0.257	0.05	0.065	0.315	0.52
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	34	0.01	0.013	0.14	0.	0.001	0.023	0.005	0.005	0.013	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	33	0.36	0.479	1.509	0.005	0.139	0.373	0.082	0.205	0.685	1.063
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/20/83	33	0.4	0.571	2.299	0.05	0.269	0.519	0.1	0.2	0.75	1.059
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-04/24/79	19	9.	9.684	22.	2.	27.228	5.218	4.	5.	13.	20.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/20/83	30	400.	1599.867	8000.	3.	5505074.395	2346.289	50.	50.	2050.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/20/83	30	2.588	2.535	3.903	0.477	0.821	0.906	1.699	1.699	3.286	3.778
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	342.652								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	27	0.1	0.159	0.8	0.05	0.03	0.174	0.05	0.05	0.2	0.35
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	27	0.07	0.113	0.6	0.01	0.014	0.12	0.028	0.05	0.13	0.252

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0089

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/08/68-09/20/83	9	11.	11.667	18.9	5.6	21.33	4.618	5.6	7.75	16.	18.9
00300	OXYGEN, DISSOLVED MG/L	07/08/68-09/20/83	9	11.	10.478	12.9	7.4	3.424	1.851	7.4	8.8	11.8	12.9
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	4	2.	2.	2.	2.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/08/68-09/20/83	9	7.5	7.456	8.	6.9	0.113	0.336	6.9	7.2	7.65	8.
00400	CONVERTED PH (STANDARD UNITS)	07/08/68-09/20/83	9	7.5	7.336	8.	6.9	0.129	0.359	6.9	7.2	7.65	8.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/08/68-09/20/83	9	0.032	0.046	0.126	0.01	0.002	0.039	0.01	0.023	0.07	0.126
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	7	117.	123.571	181.	101.	738.286	27.171	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	7	30.	31.429	51.	18.	136.619	11.688	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	7	91.	92.143	153.	51.	1150.81	33.924	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-10/12/83	8	7.	7.75	16.	4.	13.929	3.732	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-10/12/83	8	4.	3.75	6.	0.	3.643	1.909	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	8	3.5	4.	11.	0.	13.429	3.665	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/20/83	9	0.1	0.157	0.3	0.01	0.016	0.127	0.01	0.05	0.3	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	8##	0.008	0.019	0.1	0.005	0.001	0.033	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	9	0.37	0.481	1.24	0.13	0.151	0.389	0.13	0.19	0.76	1.24
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/20/83	9	0.4	0.417	0.7	0.2	0.028	0.166	0.2	0.25	0.525	0.7
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-04/24/79	4	8.5	10.5	18.	7.	25.667	5.066	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/20/83	8##	75.	987.5	6400.	50.	4845535.714	2201.258	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/20/83	8##	1.849	2.268	3.806	1.699	0.607	0.779	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	185.467								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	5##	0.05	0.07	0.1	0.05	0.001	0.027	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	5	0.04	0.06	0.16	0.02	0.003	0.057	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0089

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/08/68-09/20/83	29	21.5	21.386	29.4	9.	25.192	5.019	16.1	17.8	25.85	27.2
00300	OXYGEN, DISSOLVED MG/L	07/08/68-09/20/83	30	8.	8.15	13.8	2.	4.187	2.046	6.44	7.45	9.025	9.99
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/28/83	12	2.15	2.592	5.8	1.	2.872	1.695	1.	1.05	3.225	5.8
00400	PH (STANDARD UNITS)	07/08/68-09/20/83	30	7.5	7.707	9.	6.8	0.396	0.629	6.84	7.2	8.075	8.7
00400	CONVERTED PH (STANDARD UNITS)	07/08/68-09/20/83	30	7.5	7.387	9.	6.8	0.501	0.708	6.84	7.2	8.075	8.7
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/08/68-09/20/83	30	0.032	0.041	0.158	0.001	0.002	0.045	0.002	0.009	0.063	0.149
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/28/83	19	100.	110.789	191.	78.	924.175	30.4	83.	89.	129.	161.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/28/83	19	42.	42.684	95.	18.	326.339	18.065	22.	31.	52.	70.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/28/83	19	67.	68.368	139.	0.	955.134	30.905	39.	47.	82.	115.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-10/12/83	24	11.5	15.146	44.	1.	148.423	12.183	2.25	7.	21.	40.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-10/12/83	24	4.	4.604	15.	0.	13.804	3.715	0.5	2.	6.75	10.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/28/83	24	9.5	10.646	36.	0.	105.097	10.252	0.	2.125	15.	30.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/21/70-09/20/83	28	0.11	0.186	0.9	0.04	0.044	0.21	0.05	0.05	0.2	0.44
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	27 ##	0.005	0.009	0.02	0.005	0.	0.006	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/21/70-09/20/83	28	0.3	0.287	0.74	0.01	0.045	0.213	0.025	0.083	0.445	0.585
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/21/70-09/20/83	28	0.35	0.457	1.699	0.1	0.142	0.376	0.19	0.2	0.475	1.04
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-04/24/79	15	7.	7.733	20.	3.	16.21	4.026	3.6	5.	9.	14.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/20/83	24	400.	4550.	76000.	50.	236317826.087	15372.632	50.	100.	1775.	7000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-09/20/83	24	2.588	2.754	4.881	1.699	0.694	0.833	1.699	2.	3.249	3.841
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		567.709							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	04/21/70-04/24/79	23 ##	0.05	0.102	0.4	0.05	0.009	0.097	0.05	0.05	0.1	0.29
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	04/21/70-04/24/79	23	0.05	0.074	0.35	0.005	0.006	0.078	0.014	0.04	0.05	0.206

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0090

NPS Station ID: RICH0090  
 Location: JAMES RIVER, BUOY 168  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206046  
 RF3 Index: 02080205000100.61  
 Description:  
 CHESAPEAKE BAY PROGRAM TISSUE AND SEDIMENT DATA ALL DATA FROM VIRGINIA STATE WATER CONTROL BOARD UNLESS OTHERWISE DESIGNATED  
 SPECIAL STUDY 70-040 DES LAB SHEETS 3674-3684,3687,3688 APR-AUG 1971/

LAT/LON: 37.491420/ -77.422560

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): XPL9554/Y4151000  
 Within Park Boundary: No

Date Created: 11/08/80

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 4.160  
 RF3 Mile Point: 0.88

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.06

On/Off RF1: ON  
 On/Off RF3:

## Parameter Inventory for Station: RICH0090

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/26/71-04/26/71	13 ##	0.25	0.289	0.695	0.03	0.034	0.184	0.076	0.183	0.318	0.671
71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-04/26/71	13	0.36	0.476	1.96	0.02	0.255	0.505	0.04	0.185	0.595	1.512
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	13	1.35	2.544	7.03	0.31	6.32	2.514	0.358	0.645	4.48	6.99
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	13	7.03	6.744	9.09	3.96	2.332	1.527	4.06	5.88	7.87	8.79
71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	13	101.	101.669	128.	57.	482.022	21.955	64.48	84.5	119.5	127.2
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-04/26/71	13	3.52	3.861	5.57	1.4	1.808	1.345	1.772	2.82	5.23	5.558
71940	CADMUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-04/26/71	13	1.4	2.855	11.6	0.35	13.128	3.623	0.406	0.59	2.74	10.928
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/26/71-04/26/71	13	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0091

NPS Station ID: RICH0091  
 Location: GOODE CREEK, COMMERCE ROAD  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: GOODE CREEK SECTION: 07 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.493892/ -77.433893

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-GOD000.77  
 Within Park Boundary: No

Date Created: 05/31/97

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0091

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/06/97-12/07/98	9	17.6	17.189	25.8	8.7	27.634	5.257	8.7	13.1	20.95	25.8
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	08/06/97-12/07/98	9	10.2	11.044	25.	1.1	59.905	7.74	1.1	4.8	17.25	25.
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/06/97-12/07/98	9	133.	159.667	240.	125.	1923.	43.852	125.	128.5	198.5	240.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/06/97-12/07/98	9	141.	161.333	242.	119.	2144.25	46.306	119.	125.	207.5	242.
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	08/06/97-12/07/98	9	9.8	9.611	11.7	7.8	2.089	1.445	7.8	8.3	11.05	11.7
00310 BOD, 5 DAY, 20 DEG C MG/L	08/06/97-12/07/98	9 ##	1.	1.778	7.	1.	3.944	1.986	1.	1.	1.5	7.
00340 COD, 25N K2CR2O7 MG/L	08/06/97-12/07/98	9	10.	17.278	59.	2.5	320.069	17.89	2.5	7.5	24.5	59.
00400 PH(STANDARD UNITS)	08/06/97-12/07/98	9	7.06	7.144	7.71	6.91	0.064	0.254	6.91	6.95	7.285	7.71
00400 CONVERTED PH (STANDARD UNITS)	08/06/97-12/07/98	9	7.06	7.092	7.71	6.91	0.068	0.26	6.91	6.95	7.285	7.71
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/06/97-12/07/98	9	0.087	0.081	0.123	0.019	0.001	0.034	0.019	0.052	0.112	0.123
00403 PH, LAB, STANDARD UNITS SU	08/06/97-12/07/98	9	6.8	6.756	7.2	6.4	0.07	0.265	6.4	6.55	6.95	7.2
00403 CONVERTED PH, LAB, STANDARD UNITS	08/06/97-12/07/98	9	6.8	6.691	7.2	6.4	0.075	0.274	6.4	6.55	6.95	7.2
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/06/97-12/07/98	9	0.158	0.204	0.398	0.063	0.012	0.11	0.063	0.119	0.284	0.398
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	08/06/97-12/07/98	9	27.	31.444	61.	19.	161.028	12.69	19.	24.	36.5	61.
00500 RESIDUE, TOTAL (MG/L)	08/06/97-12/07/98	9	104.	110.111	151.	76.	643.861	25.374	76.	88.5	132.5	151.
00505 RESIDUE, TOTAL VOLATILE (MG/L)	08/06/97-12/07/98	9	30.	29.889	48.	19.	81.611	9.034	19.	21.	34.	48.
00510 RESIDUE, TOTAL FIXED (MG/L)	08/06/97-12/07/98	9	73.	80.222	116.	49.	596.694	24.427	49.	61.	107.5	116.
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/06/97-12/07/98	9	6.	6.056	13.	1.5	10.403	3.225	1.5	4.	7.5	13.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	08/06/97-12/07/98	9 ##	1.5	2.056	4.	1.5	1.215	1.102	1.5	1.5	2.75	4.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	08/06/97-12/07/98	9	4.	3.833	9.	1.5	5.813	2.411	1.5	1.5	5.	9.
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	08/06/97-12/07/98	9 ##	0.02	0.027	0.05	0.02	0.	0.013	0.02	0.02	0.035	0.05
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	08/06/97-12/07/98	9	0.01	0.011	0.02	0.005	0.	0.006	0.005	0.005	0.015	0.02
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	08/06/97-12/07/98	9	0.63	0.626	1.07	0.02	0.098	0.313	0.02	0.465	0.85	1.07
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/06/97-12/07/98	9	0.4	0.411	0.6	0.2	0.019	0.136	0.2	0.3	0.55	0.6
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/06/97-12/07/98	9	0.06	0.158	1.	0.03	0.1	0.316	0.03	0.035	0.075	1.
00900 HARDNESS, TOTAL (MG/L AS CACO3)	08/06/97-12/07/98	9	40.	43.444	70.	31.	159.028	12.611	31.	35.	51.	70.
00940 CHLORIDE, TOTAL IN WATER MG/L	08/06/97-12/07/98	9	15.	16.778	29.	8.	62.194	7.886	8.	9.5	25.	29.
00945 SULFATE, TOTAL (MG/L AS SO4)	08/06/97-12/07/98	9	12.	12.222	18.	7.	10.444	3.232	7.	10.	14.5	18.
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	08/06/97-12/07/98	9	1300.	3337.778	16000.	110.	25448619.444	5044.662	110.	465.	4450.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	08/06/97-12/07/98	9	3.114	3.106	4.204	2.041	0.489	0.699	2.041	2.522	3.638	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	08/06/97-12/07/98			GEOMETRIC MEAN = 1275.627								
70507 PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	08/06/97-12/07/98	9	0.05	0.07	0.32	0.01	0.009	0.095	0.01	0.025	0.06	0.32

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0091

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
00400 PH	Fresh Chronic	9.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
	Other-Lo Lim.	6.5	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
00403 PH, LAB	Fresh Chronic	9.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
	Other-Lo Lim.	6.5	9	2	0.22	3	0	0.00	4	1	0.25	2	1	0.50
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
	Drinking Water	250.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	9	0	0.00	3	0	0.00	4	0	0.00	2	0	0.00
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	9	7	0.78	3	2	0.67	4	3	0.75	2	2	1.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0092

NPS Station ID: RICH0092  
 Location: BELOW GOODE CREEK N°172° J03  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206046  
 RF3 Index: 02080205020800.11  
 Description:

LAT/LON: 37.496115/ -77.423615

Agency: 1113JAWQ  
 FIPS State/County: 51000 VIRGINIA/  
 STORET Station ID(s): JAMES J03 /J03 /J3  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 1  
 Elevation: 0  
 RF1 Mile Point: 4.600  
 RF3 Mile Point: 1.70

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.04

On/Off RF1: ON  
 On/Off RF3:

## Parameter Inventory for Station: RICH0092

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-11/04/71	22	23.3	20.7	26.7	3.3	38.606	6.213	9.45	17.975	25.15	26.52
00070	TURBIDITY, (JACKSON CANDLE UNITS)	07/23/71-07/23/71	1	16.	16.	16.	0.	0.	**	**	**	**	**
00077	TRANSPARENCY, SECCHI DISC (INCHES)	10/19/71-11/04/71	4	30.	27.	36.	12.	108.	10.392	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/22/68-11/04/71	22	8.1	8.164	12.8	3.8	4.521	2.126	6.	6.75	9.025	12.17
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-11/04/71	11	2.	2.6	7.	0.5	2.88	1.697	0.74	1.7	3.3	6.34
00400	PH (STANDARD UNITS)	07/22/68-11/02/71	19	8.5	8.389	9.3	6.6	0.498	0.705	6.8	8.2	8.8	9.
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-11/02/71	19	8.5	7.599	9.3	6.6	1.157	1.075	6.8	8.2	8.8	9.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-11/02/71	19	0.003	0.025	0.251	0.001	0.004	0.065	0.001	0.002	0.006	0.158
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/17/70-11/04/71	15	0.8	0.834	1.7	0.001	0.418	0.647	0.001	0.172	1.5	1.7
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/17/70-11/04/71	16	0.565	0.789	2.1	0.2	0.299	0.547	0.284	0.4	1.3	1.68
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	02/17/70-11/04/71	16	0.16	0.213	0.7	0.01	0.031	0.177	0.031	0.083	0.313	0.49
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	02/17/70-11/04/71	16	0.1	0.139	0.4	0.05	0.007	0.083	0.085	0.1	0.185	0.267
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	02/17/70-11/04/71	17	0.05	0.081	0.21	0.01	0.004	0.064	0.018	0.035	0.135	0.202
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	10/21/71-11/04/71	4	6.	6.5	9.1	4.9	3.813	1.953	**	**	**	**
00690	CARBON, TOTAL (MG/L AS C)	10/21/71-11/04/71	4	12.9	13.575	16.6	11.9	4.716	2.172	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	02/17/70-05/03/70	2	8753.5	8753.5	8957.	8550.	82824.5	287.792	**	**	**	**
31505	COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/22/68-11/04/71	24	430.	14942.542	93000.	30.	937910955.042	30625.332	30.	91.	11000.	91800.
31505	LOG COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	07/22/68-11/04/71	24	2.633	2.951	4.968	1.477	1.47	1.212	1.477	1.959	4.041	4.963
31505	GM COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)				893.561								
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	05/11/71-11/04/71	9	100.	13233.333	91800.	10.	929028025.	30479.961	10.	100.	13050.	91800.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	05/11/71-11/04/71	9	2.	2.729	4.963	1.	1.652	1.285	1.	2.	3.851	4.963
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)				536.057								
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/19/71-11/02/71	2	57900.	57900.	91800.	24000.	2298420000.	47941.84	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	10/19/71-11/02/71	2	4.672	4.672	4.963	4.38	0.17	0.412	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				46938.257								
32210	CHLOROPHYLL-A UG/L TRICROMATIC UNCORRECTED	10/19/71-11/02/71	3	6.	6.	9.	3.	9.	3.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0092

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14	10/15-3/15	3/16-6/30	n/a				
						Obs	Exceed	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	1	0.00	1	0	0.00	0	0.00	7	0	0.00
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	22	1	10	1	0.10	5	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0092

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00400	PH	Fresh Chronic	9.	19	3	0.16	10	3	0.30	3	0	0.00	6	0	0.00			
		Other-Lo Lim.	6.5	19	0	0.00	10	0	0.00	3	0	0.00	6	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	16	0	0.00	6	0	0.00	5	0	0.00	5	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	2	2	1.00				1	1	1.00	1	1	1.00			
		Drinking Water	250.	2	2	1.00				1	1	1.00	1	1	1.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	24	10	0.42	10	1	0.10	7	7	1.00	7	2	0.29			
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	9	4	0.44	3	0	0.00	4	4	1.00	2	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	2	1.00				2	2	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0093

NPS Station ID: RICH0093  
 Location: JAMES RIVER, BUOY 173 OFF GOODE CREEK  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0132 TOPO MAP NAME: DREWRY'S BLUFF, VA

LAT/LON: 37.498337/ -77.423338

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-JMS107.51  
 Within Park Boundary: No

Date Created: 06/25/94

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

### Parameter Inventory for Station: RICH0093

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	51	24.3	23.529	30.2	14.7	19.834	4.454	16.26	20.5	27.5	28.66
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	11	3.3	5.291	12.	1.4	14.101	3.755	1.46	2.	8.8	11.62
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-10/26/98	47	215.	218.745	403.	89.	4705.933	68.6	139.6	161.	274.	308.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	11	198.	198.818	282.	124.	2824.564	53.147	124.2	141.	252.	276.2
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	50	8.2	8.392	10.5	6.4	0.85	0.922	7.4	7.875	9.	9.89
00310 BOD, 5 DAY, 20 DEG C MG/L	06/28/94-06/01/95	12	1.	1.225	2.7	0.5	0.693	0.832	0.5	0.5	1.925	2.67
00400 PH (STANDARD UNITS)	06/28/94-10/26/98	51	7.68	7.71	8.65	6.7	0.125	0.354	7.328	7.44	7.93	8.234
00400 CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	51	7.68	7.572	8.65	6.7	0.145	0.38	7.328	7.44	7.93	8.234
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	51	0.021	0.027	0.2	0.002	0.001	0.028	0.006	0.012	0.036	0.047
00403 PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	10	7.55	7.44	8.1	6.7	0.172	0.414	6.72	7.125	7.65	8.07
00403 CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	10	7.547	7.253	8.1	6.7	0.211	0.459	6.72	7.125	7.65	8.07
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	10	0.028	0.056	0.2	0.008	0.004	0.061	0.009	0.023	0.079	0.192
00410 ALKALINITY, TOTAL (MG/L AS CaCO3)	07/28/94-06/01/95	10	52.	52.2	73.	23.	223.289	14.943	24.2	44.	64.	72.4
00500 RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	10	138.	134.1	167.	89.	617.656	24.853	90.	118.5	152.25	166.2
00505 RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	10	39.	35.6	51.	17.	185.156	13.607	17.3	20.	48.5	50.9
00510 RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	10	91.5	98.5	142.	69.	622.5	24.95	69.5	77.75	120.75	140.1
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	11	5.	6.864	18.	1.5	28.755	5.362	1.5	1.5	11.	17.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	11 ##	1.5	1.727	3.	1.	0.468	0.684	1.	1.5	2.	3.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	11	4.	5.682	15.	1.5	19.564	4.423	1.5	1.5	10.	14.
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/28/94-06/01/95	12	0.19	0.228	0.72	0.02	0.037	0.193	0.032	0.083	0.315	0.627
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	11	0.01	0.015	0.03	0.005	0.	0.01	0.005	0.005	0.02	0.03
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	07/14/94-06/01/95	11	0.17	0.17	0.35	0.02	0.012	0.109	0.02	0.08	0.25	0.342
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/14/94-06/01/95	11	0.5	0.491	1.	0.3	0.041	0.202	0.3	0.3	0.6	0.92
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/14/94-06/01/95	11	0.08	0.091	0.16	0.05	0.001	0.035	0.052	0.06	0.11	0.156
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	1	3.7	3.7	3.7	3.7	0.	0.	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	10	14.5	14.	23.	6.	36.222	6.018	6.1	7.	19.5	22.8
00945 SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	10	21.5	21.5	35.	11.	76.944	8.772	11.1	12.	30.5	34.7
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	53	700.	3772.038	16000.	20.	35227881.614	5935.308	110.	230.	5400.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	53	2.845	2.953	4.204	1.301	0.599	0.774	2.041	2.362	3.732	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				GEOMETRIC MEAN = 896.409								
70507 PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	07/14/94-06/01/95	11	0.06	0.068	0.12	0.04	0.001	0.026	0.04	0.05	0.09	0.116

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0093

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	15	0	0.00
00400 PH	Fresh Chronic	9.	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00
	Other-Lo Lim.	6.5	51	0	0.00	31	0	0.00	5	0	0.00	15	0	0.00
00403 PH, LAB	Fresh Chronic	9.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00
	Other-Lo Lim.	6.5	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00
	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	53	43	0.81	32	28	0.88	5	3	0.60	16	12	0.75

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0093

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	9	25.1	24.156	29.2	17.2	18.658	4.319	17.2	20.05	27.45	29.2
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	8.	8.122	9.8	6.4	0.932	0.965	6.4	7.7	8.7	9.8
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	9	7.68	7.794	8.65	7.31	0.181	0.425	7.31	7.525	8.035	8.65
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	9	7.68	7.663	8.65	7.31	0.2	0.448	7.31	7.525	8.035	8.65
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	9	0.021	0.022	0.049	0.002	0.	0.014	0.002	0.012	0.03	0.049
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	790.	4596.667	16000.	230.	44288075.	6654.929	230.	475.	10700.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	2.898	3.19	4.204	2.362	0.472	0.687	2.362	2.676	3.968	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		1549.603							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0093

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	8	22.6	22.638	30.2	15.1	29.406	5.423	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	8	8.45	8.6	10.4	6.9	1.289	1.135	**	**	**	**
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	8	7.415	7.545	8.13	7.26	0.098	0.313	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	8	7.414	7.465	8.13	7.26	0.106	0.325	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	8	0.039	0.034	0.055	0.007	0.	0.018	**	**	**	**
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	490.	3230.	16000.	110.	27749600.	5267.789	110.	170.	5400.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	2.69	2.918	4.204	2.041	0.634	0.796	2.041	2.23	3.732	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		828.475							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0093

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	12	21.15	22.042	28.	15.1	18.632	4.316	15.43	19.05	26.575	27.85
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.5	8.7	10.2	7.4	0.767	0.876	7.46	7.95	9.475	10.05
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.57	7.565	8.33	6.7	0.135	0.367	6.913	7.448	7.715	8.159
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.568	7.397	8.33	6.7	0.165	0.406	6.913	7.448	7.715	8.159
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	12	0.027	0.04	0.2	0.005	0.003	0.051	0.008	0.019	0.036	0.151
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	490.	4370.833	16000.	110.	49314917.424	7022.458	110.	155.	12325.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	2.69	2.95	4.204	2.041	0.696	0.834	2.041	2.176	3.932	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		890.694							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0093

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	10	23.65	23.4	28.8	14.7	21.171	4.601	15.18	20.55	27.525	28.68
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	8.1	8.289	9.9	7.4	0.566	0.752	7.4	7.8	8.7	9.9
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	10	7.64	7.655	8.05	7.36	0.071	0.267	7.361	7.408	7.945	8.044
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	10	7.633	7.588	8.05	7.36	0.076	0.276	7.361	7.407	7.945	8.044
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	10	0.023	0.026	0.044	0.009	0.	0.014	0.009	0.011	0.039	0.044
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	790.	2945.273	16000.	78.	25979293.818	5096.989	96.4	260.	3500.	14640.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	2.898	2.923	4.204	1.892	0.513	0.716	1.96	2.415	3.544	4.156
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		837.193							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0093

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/94-10/26/98	12	26.25	25.25	29.3	16.5	15.361	3.919	17.7	22.6	28.075	29.3
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	7.95	8.225	10.5	7.1	0.875	0.935	7.13	7.525	8.725	10.05
00400	PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.955	7.948	8.42	7.63	0.069	0.263	7.636	7.67	8.12	8.372
00400	CONVERTED PH (STANDARD UNITS)	06/28/94-10/26/98	12	7.953	7.88	8.42	7.63	0.074	0.273	7.636	7.67	8.12	8.372
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/94-10/26/98	12	0.011	0.013	0.023	0.004	0.	0.007	0.004	0.008	0.021	0.023
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	515.	3719.167	16000.	20.	39333808.333	6271.667	47.	230.	7097.5	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	2.682	2.83	4.204	1.301	0.799	0.894	1.523	2.362	3.697	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		675.888							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0094

NPS Station ID: RICH0094  
 Location: RT. 5 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206046  
 RF3 Index: 02080205000103.48  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: ALMOND CREEK SECTION: 07 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.506642/ -77.412227

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-ALM000.42 /VA2-07-X0002/VA2-4X0002  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 5.420  
 RF3 Mile Point: 3.90

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.50  
 Distance from RF3: 0.06

On/Off RF1: ON  
 On/Off RF3:

### Parameter Inventory for Station: RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	246	15.	14.737	29.	0.1	42.612	6.528	5.45	9.25	20.425	23.
00061 FLOW, STREAM, INSTANTANEOUS CFS	04/21/82-04/22/85	13	2.	3.992	16.	0.9	17.884	4.229	0.94	1.	6.	12.4
00070 TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	56	4.5	19.432	390.	1.2	3989.813	63.165	1.94	3.	6.775	23.3
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	09/12/94-12/07/98	21	5.	8.395	58.	1.4	162.902	12.763	1.78	3.55	6.7	25.64
00080 COLOR (PLATINUM-COBALT UNITS)	02/13/91-05/05/94	21	31.	38.286	186.	11.	1241.214	35.231	18.2	22.5	40.5	47.8
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	128	253.5	250.25	476.	19.	3267.008	57.158	190.5	215.25	281.	305.7
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-12/07/98	63	244.	251.159	416.	183.	1548.426	39.35	213.2	226.	266.	295.6
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	02/10/92-12/07/98	33	9.6	9.576	13.5	6.5	3.071	1.753	7.22	8.05	11.15	11.8
00300p OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	216	9.	9.231	14.8	0.	4.725	2.174	7.	7.9	10.575	12.2
00310p BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	177	2.	3.315	90.	0.5	52.631	7.255	1.	1.	3.	6.2
00340p COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	172	12.	15.753	204.	0.5	368.048	19.185	5.	8.25	18.	23.7
00400p PH (STANDARD UNITS)	02/03/69-12/07/98	241	7.	7.257	12.	4.2	0.997	0.999	6.5	6.705	7.5	8.15
00400p CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	241	7.	6.339	12.	4.2	1.843	1.358	6.5	6.705	7.5	8.15
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	241	0.1	0.458	63.096	0.	16.928	4.114	0.007	0.032	0.197	0.316
00403 PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	148	6.9	7.193	12.3	4.2	1.512	1.23	6.49	6.7	7.2	7.7
00403 CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	148	6.9	6.185	12.3	4.2	2.535	1.592	6.49	6.7	7.2	7.7
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	148	0.126	0.653	63.096	0.	27.412	5.236	0.02	0.063	0.2	0.324
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	148	31.	72.682	1695.	0.	43232.994	207.925	17.9	25.25	37.75	66.
00415 ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/21/74-07/21/74	1	120.	120.	120.	0.	0.	0.	**	**	**	**
00435 ACIDITY, TOTAL (MG/L AS CACO3)	07/24/69-08/15/79	4	44.5	65.	162.	9.	4490.	67.007	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	145	165.	227.166	2067.	31.	66765.75	258.391	131.6	148.	192.5	301.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	147	38.	49.109	408.	0.	2347.139	48.447	22.	29.	49.	85.6
00510 RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	146	127.	203.158	2410.	4.	101189.182	318.102	81.7	103.75	151.	258.2
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	240	5.	26.576	705.	0.	5824.059	76.316	1.5	2.5	11.	57.2
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	237	2.5	7.27	384.	0.	720.372	26.84	0.5	1.5	5.	12.2
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	239	2.5	20.059	643.	0.	4272.976	65.368	0.5	1.5	7.	36.
00545 RESIDUE, SETTLEABLE (ML/L)	02/03/69-02/03/69	1	40.	40.	40.	40.	0.	0.	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	236	0.1	0.379	2.9	0.02	0.354	0.595	0.04	0.05	0.4	1.311
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	236	0.01	0.031	0.51	0.005	0.004	0.06	0.005	0.005	0.03	0.08
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	219	1.08	1.08	2.649	0.02	0.165	0.407	0.6	0.8	1.38	1.5
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	233	0.5	0.832	7.	0.05	1.015	1.007	0.2	0.3	0.9	2.1
00630 NITRITE PLUS NITRATE, TOTAL 1 DET, (MG/L AS N)	06/15/77-06/07/79	16	1.25	1.163	1.6	0.6	0.08	0.283	0.67	0.925	1.375	1.53
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	170	0.05	0.114	1.	0.01	0.025	0.159	0.05	0.05	0.1	0.2

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	152	0.02	0.097	5.	0.005	0.178	0.421	0.01	0.01	0.06	0.181
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	154	5.	6.449	77.	1.	53.309	7.301	2.4	3.2	7.	11.
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	04/22/85-12/07/98	78	74.	75.346	148.	21.	294.541	17.162	58.	65.5	82.25	96.2
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	78	21.	21.782	59.	9.	48.173	6.941	15.	18.	24.	30.
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	02/21/89-12/07/98	75	41.	46.213	164.	21.	501.63	22.397	27.2	34.	54.	65.4
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	47	0.13	0.129	0.25	0.025	0.004	0.06	0.05	0.1	0.15	0.22
00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	04/19/89-02/09/93	42	10.2	10.412	15.1	7.8	3.062	1.75	8.16	9.275	11.1	13.32
01002	ARSENIC, TOTAL (UG/L AS AS)	05/06/72-04/28/93	18 ##	5.	3.361	6.	1.	4.171	2.042	1.	1.	5.	5.1
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-08/27/92	4	4.6	4.155	6.	1.42	3.867	1.966	**	**	**	**
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	08/27/92-08/27/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/06/72-04/28/93	18 ##	5.	5.056	10.	0.5	5.32	2.307	0.5	5.	5.	10.
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	4 ##	0.068	0.671	2.5	0.05	1.487	1.219	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	4	5.44	5.715	9.	2.98	6.218	2.494	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/06/72-04/28/93	23 ##	5.	5.022	10.	0.5	2.056	1.434	5.	5.	5.	5.
01042	COPPER, TOTAL (UG/L AS CU)	05/06/72-04/28/93	23 ##	5.	6.13	13.	5.	6.755	2.599	5.	5.	5.	11.8
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-08/27/92	4	9.675	9.163	13.7	3.6	20.956	4.578	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/01/78-04/28/93	10	585.	646.	1260.	380.	61026.667	247.036	392.	500.	725.	1217.
01051	LEAD, TOTAL (UG/L AS PB)	05/06/72-04/28/93	23 ##	5.	24.761	414.	0.5	7268.906	85.258	1.	4.	5.	32.2
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-08/27/92	4	5.75	6.825	15.	0.8	49.563	7.04	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/01/78-04/28/93	10	90.	118.1	274.	40.	5625.433	75.003	43.	75.25	155.	269.6
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/01/78	9 ##	50.	40.556	50.	5.	352.778	18.782	5.	30.	50.	50.
01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-04/28/93	11 ##	5.	5.455	10.	5.	2.273	1.508	5.	5.	5.	9.
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	4 ##	1.65	5.238	16.9	0.75	61.112	7.817	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/06/72-04/28/93	23	30.	30.087	60.	5.	262.356	16.197	5.	20.	42.	54.8
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-08/27/92	4	23.	22.85	28.	17.4	26.017	5.101	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	10/25/90-04/28/93	8 ##	10.	8.75	10.	5.	5.357	2.315	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	08/27/92-08/27/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	02/03/69-07/24/69	2	33000.	33000.	43000.	23000.	200000000.	14142.136	**	**	**	**
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150	02/03/69-07/24/69	2	4.498	4.498	4.633	4.362	0.037	0.192	**	**	**	**
31615	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506			31448.37									
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/12/94-12/07/98	21	490.	2798.095	16000.	110.	30898786.19	5558.668	130.	230.	1375.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/12/94-12/07/98	21	2.69	2.824	4.204	2.041	0.461	0.679	2.114	2.362	3.116	4.204
31616	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			666.48									
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	218	500.	2032.339	8000.	50.	7574905.562	2752.255	50.	100.	2950.	8000.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	218	2.699	2.752	3.903	1.699	0.617	0.786	1.699	2.	3.47	3.903
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C			564.407									
32240	TANNIN AND LIGNIN (MG/L)	01/12/94-05/05/94	2	0.9	0.9	1.3	0.5	0.32	0.566	**	**	**	**
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	01/22/74-06/02/74	5	175.	204.8	520.	25.	40920.2	202.287	**	**	**	**
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34480	THALLIUM DRY WGBTOTMG/KG	08/27/92-08/27/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	08/27/92-08/27/92	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39305	P,O' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39315	O,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-08/27/92	2 ##	25.	25.	50.	0.	1250.	35.355	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.05	0.	0.	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	08/27/92-08/27/92	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.05	0.	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.05	0.	**	**	**	**
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	08/27/92-08/27/92	1 ##	250.	250.	250.	250.	250.	0.	**	**	**	**
39630	ATRAZINE(ATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-08/22/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	11/27/72-07/07/79	63 ##	0.05	0.166	3.6	0.05	0.243	0.493	0.05	0.05	0.1	0.2
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-12/07/98	84	0.045	0.058	0.9	0.005	0.011	0.107	0.005	0.01	0.05	0.1
71900	MERCURY, TOTAL (UG/L AS HG)	05/06/72-04/28/93	23 ##	0.25	0.204	0.3	0.15	0.003	0.054	0.15	0.15	0.25	0.25
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-08/27/92	4 ##	0.063	0.071	0.15	0.01	0.004	0.066	**	**	**	**
75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0094

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	56	4	0.07	13	0	0.00	23	3	0.13	20	1	0.05		
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	21	1	0.05	6	0	0.00	7	1	0.14	8	0	0.00		
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	33	0	0.00	9	0	0.00	11	0	0.00	13	0	0.00		
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	216	3	0.01	53	1	0.02	90	2	0.02	73	0	0.00		
00400	PH	Fresh Chronic	9.	241	21	0.09	62	5	0.08	96	9	0.09	83	7	0.08		
		Other-Lo Lim.	6.5	241	32	0.13	62	7	0.11	96	13	0.14	83	12	0.14		
00403	PH, LAB	Fresh Chronic	9.	148	10	0.07	34	3	0.09	63	5	0.08	51	2	0.04		
		Other-Lo Lim.	6.5	148	20	0.14	34	3	0.09	63	11	0.17	51	6	0.12		
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	236	0	0.00	61	0	0.00	96	0	0.00	79	0	0.00		
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	219	0	0.00	57	0	0.00	92	0	0.00	70	0	0.00		
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	16	0	0.00	4	0	0.00	4	0	0.00	8	0	0.00		
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	78	0	0.00	17	0	0.00	31	0	0.00	30	0	0.00		
		Drinking Water	250.	78	0	0.00	17	0	0.00	31	0	0.00	30	0	0.00		
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	75	0	0.00	17	0	0.00	29	0	0.00	29	0	0.00		
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	47	0	0.00	11	0	0.00	18	0	0.00	18	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

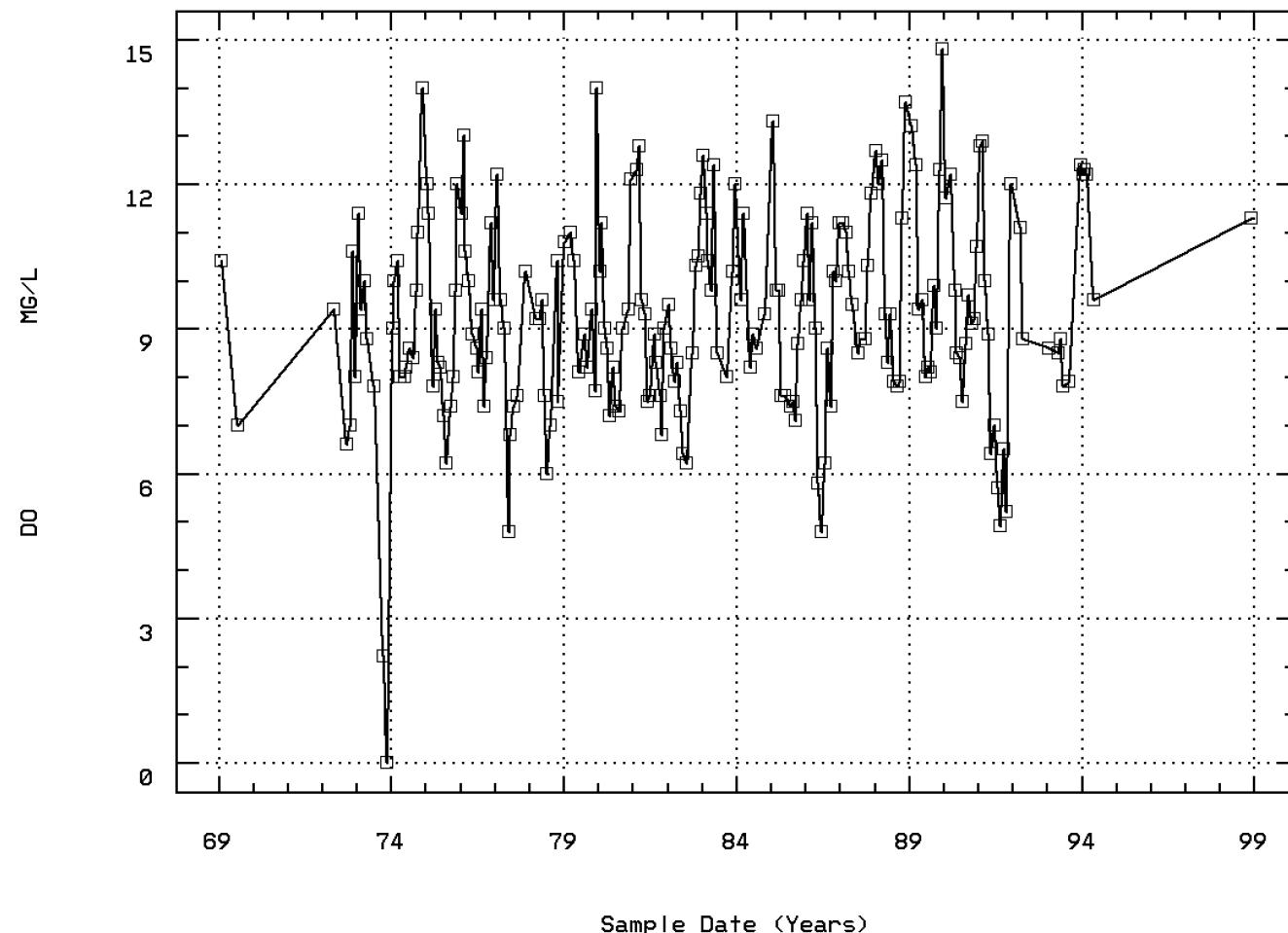
### EPA Water Quality Criteria Analysis for Station: RICH0094

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01002 ARSENIC, TOTAL	Fresh Acute	360.	18	0	0.00	2	0	0.00	7	0	0.00	9	0	0.00
	Drinking Water	50.	18	0	0.00	2	0	0.00	7	0	0.00	9	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	4 &	2	0.50							4	2	0.50
	Drinking Water	5.	4 &	2	0.50							4	2	0.50
01034 CHROMIUM, TOTAL	Drinking Water	100.	23	0	0.00	2	0	0.00	10	0	0.00	11	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	23	0	0.00	2	0	0.00	10	0	0.00	11	0	0.00
	Drinking Water	1300.	23	0	0.00	2	0	0.00	10	0	0.00	11	0	0.00
01051 LEAD, TOTAL	Fresh Acute	82.	23	1	0.04	2	0	0.00	10	0	0.00	11	1	0.09
	Drinking Water	15.	23	4	0.17	2	0	0.00	10	1	0.10	11	3	0.27
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	9	0	0.00				5	0	0.00	4	0	0.00
	Drinking Water	100.	9	0	0.00				5	0	0.00	4	0	0.00
01067 NICKEL, TOTAL	Fresh Acute	1400.	11	0	0.00	2	0	0.00	4	0	0.00	5	0	0.00
	Drinking Water	100.	11	0	0.00	2	0	0.00	4	0	0.00	5	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	23	0	0.00	2	0	0.00	10	0	0.00	11	0	0.00
	Drinking Water	5000.	23	0	0.00	2	0	0.00	10	0	0.00	11	0	0.00
01147 SELENIUM, TOTAL	Fresh Acute	20.	8	0	0.00	2	0	0.00	3	0	0.00	3	0	0.00
	Drinking Water	50.	8	0	0.00	2	0	0.00	3	0	0.00	3	0	0.00
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	2	2	1.00	1	1	1.00	1	1	1.00			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	21	17	0.81	6	6	1.00	7	6	0.86	8	5	0.63
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	218	156	0.72	56	44	0.79	89	57	0.64	73	55	0.75
34356 ENDOSULFAN, BETA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00
34361 ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
	Drinking Water	1.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39300 P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39310 P,P' DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	4	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00
39340 GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00							1	0	0.00
	Drinking Water	0.2	1	0	0.00							1	0	0.00
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00			
	Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00			
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39390 ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	1	0	0.00							1	0	0.00
	Drinking Water	3.	1	0	0.00							1	0	0.00
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Drinking Water	0.4	1	0	0.00							1	0	0.00
	Fresh Acute	0.52	1	0	0.00							1	0	0.00
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	0.2	1	0	0.00							1	0	0.00
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Drinking Water	3.	1	0	0.00									
	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00			
39730 2,4-D IN WHOLE WATER SAMPLE	Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00			
39760 SILVEX IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00							1	0	0.00
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
71900 MERCURY, TOTAL	Fresh Acute	2.4	23	0	0.00	2	0	0.00	10	0	0.00	11	0	0.00
	Drinking Water	2.	23	0	0.00	2	0	0.00	10	0	0.00	11	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station: RICH0094 Parameter Code: 00300

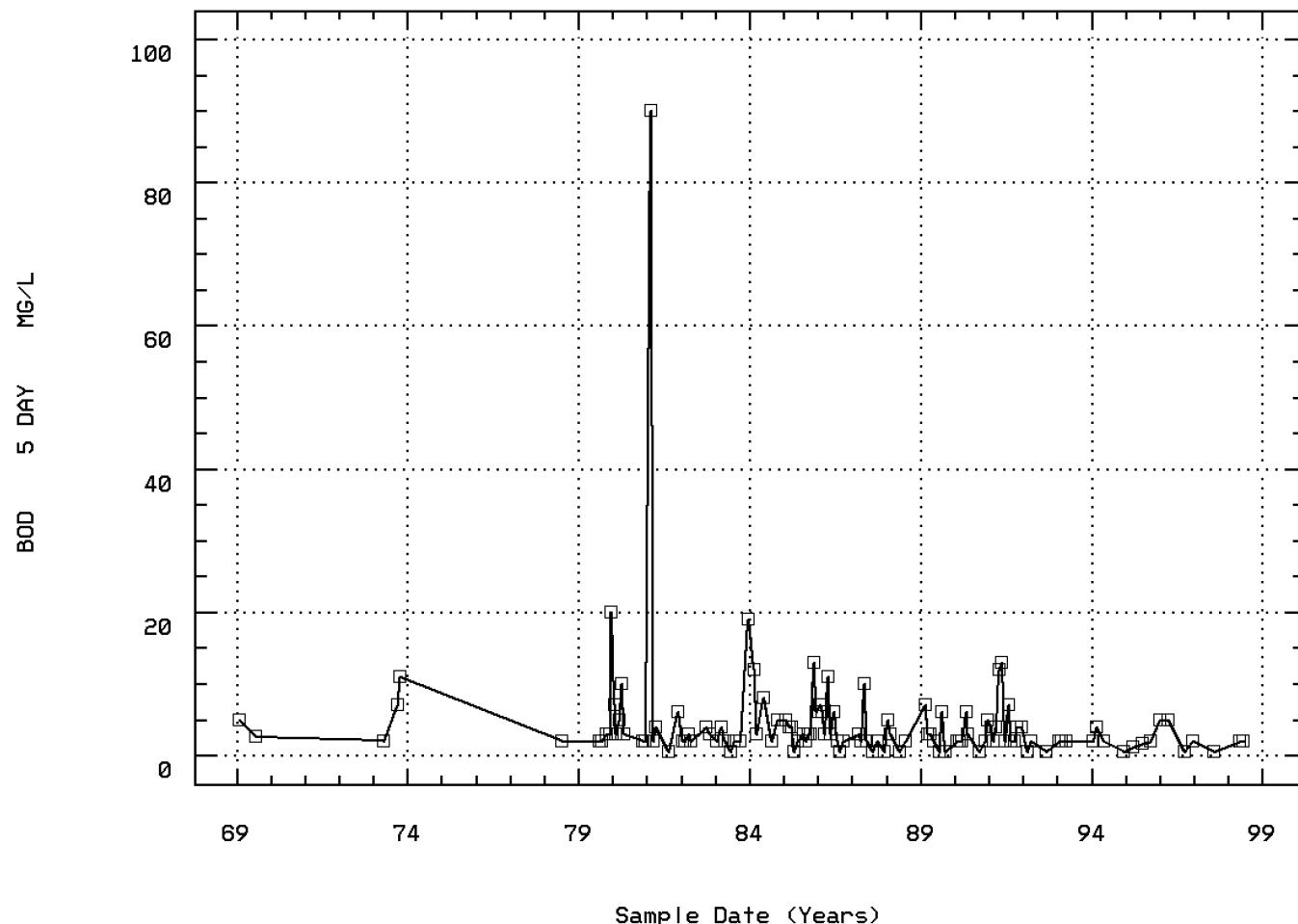
OXYGEN, DISSOLVED



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00310

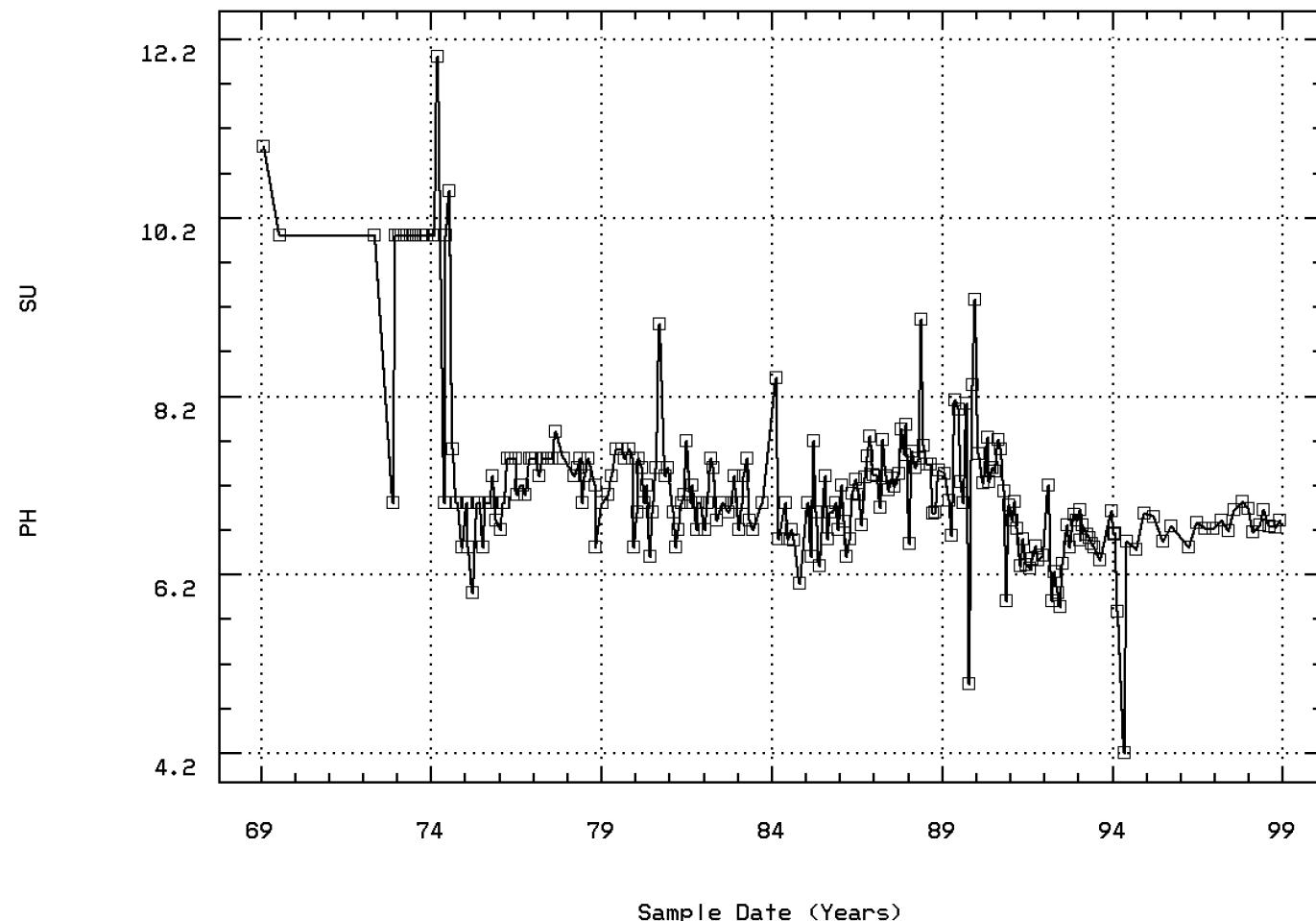
BOD, 5 DAY, 20 DEG C



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00400

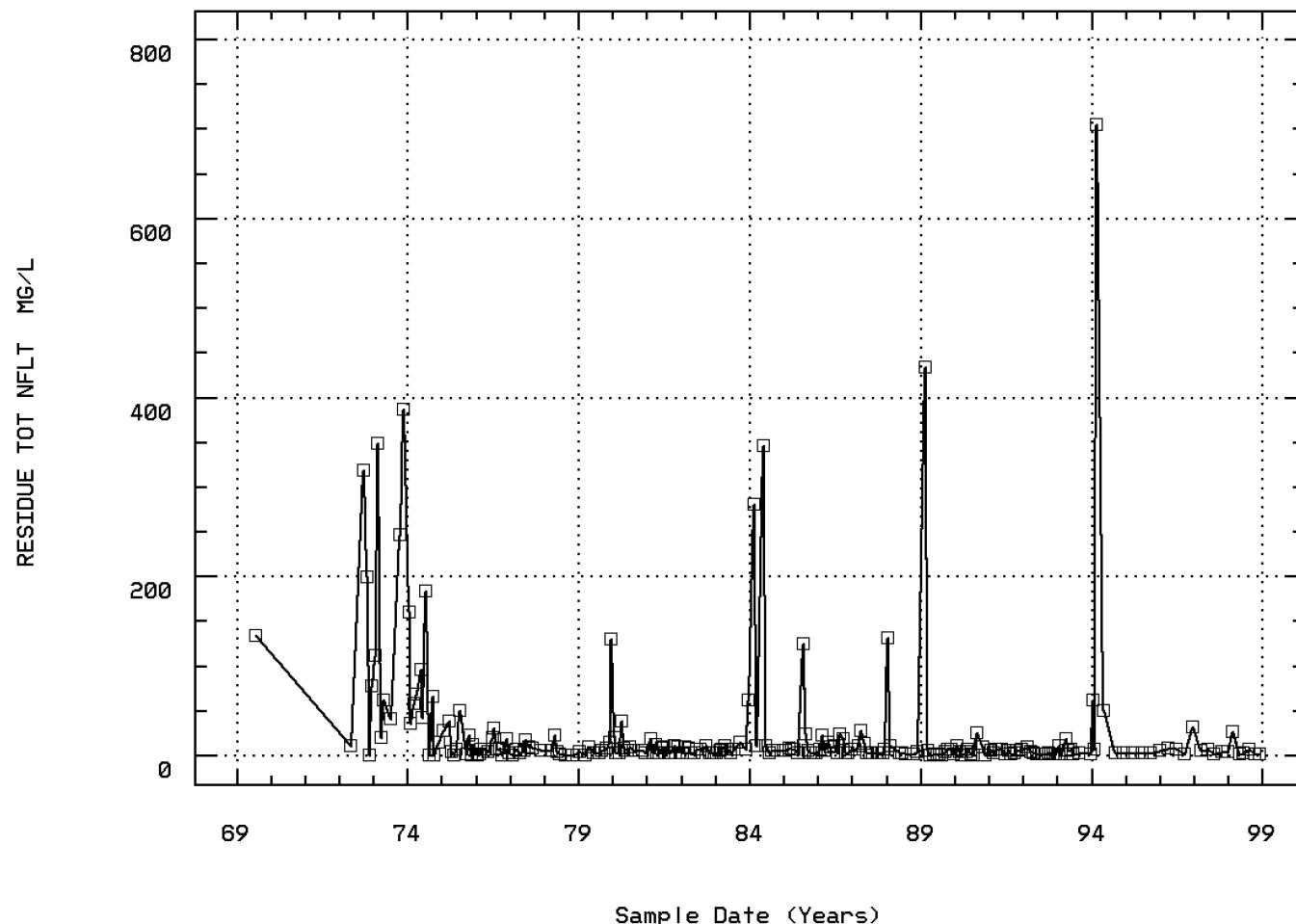
PH (STANDARD UNITS)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00530

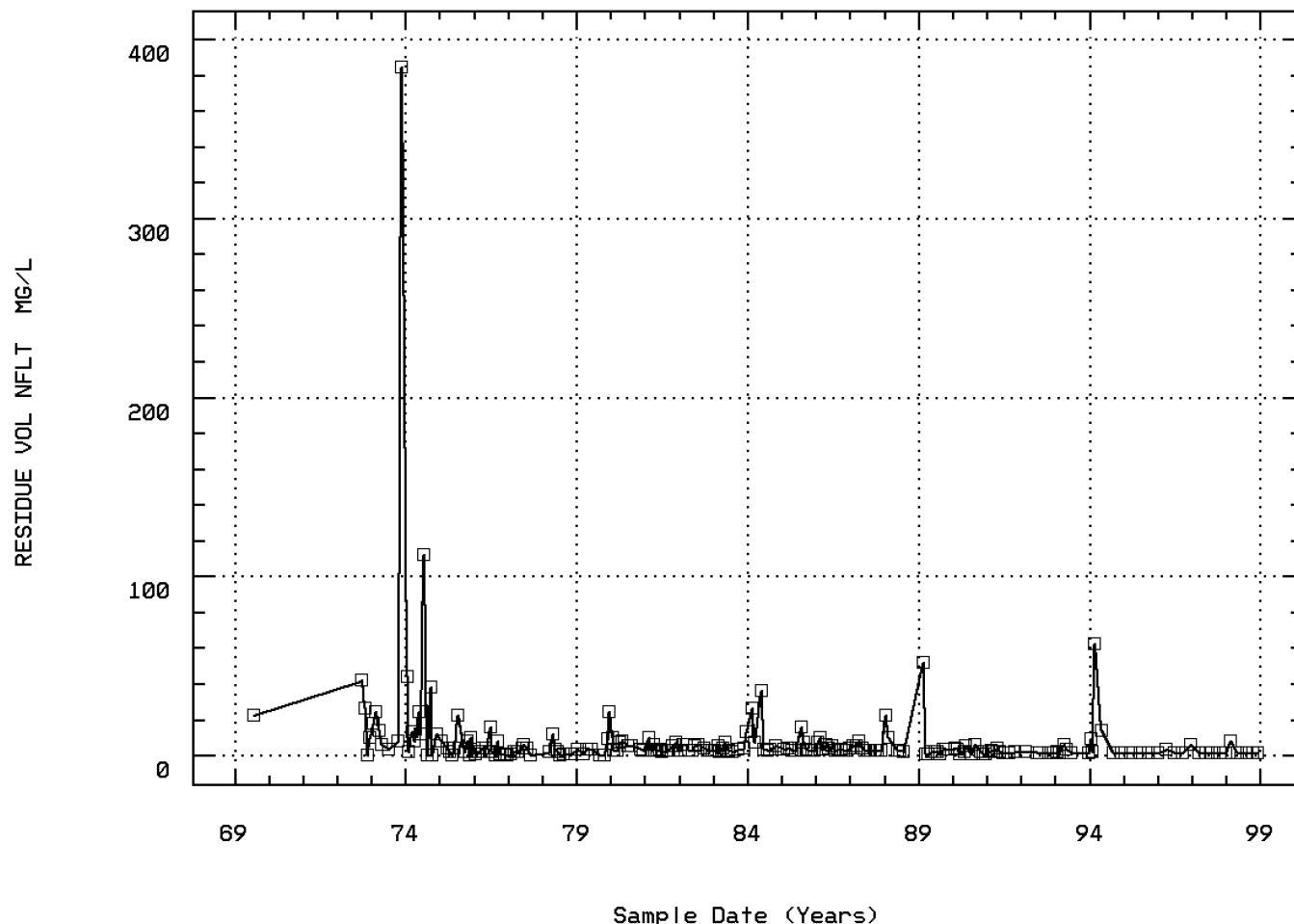
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00535

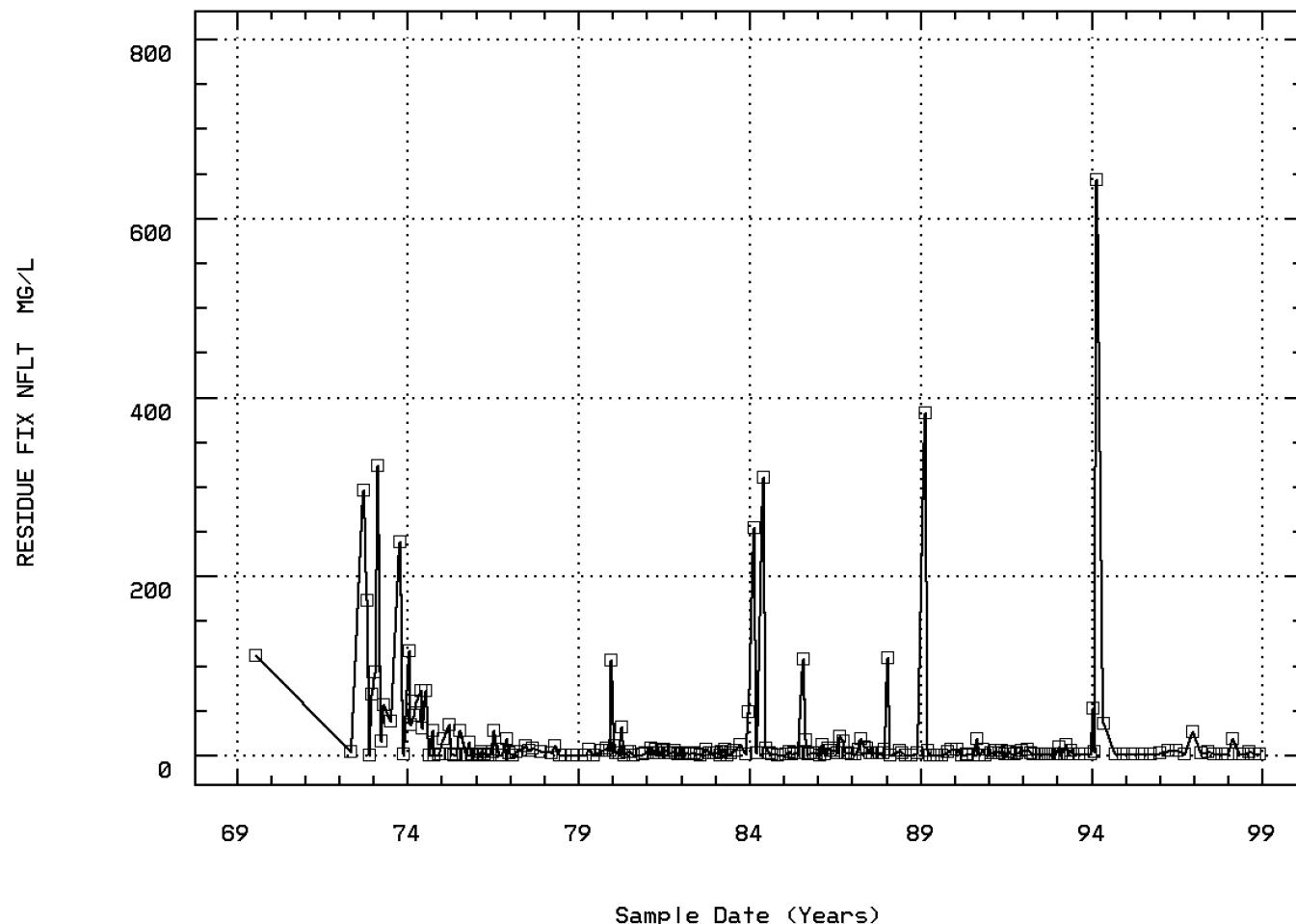
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00540

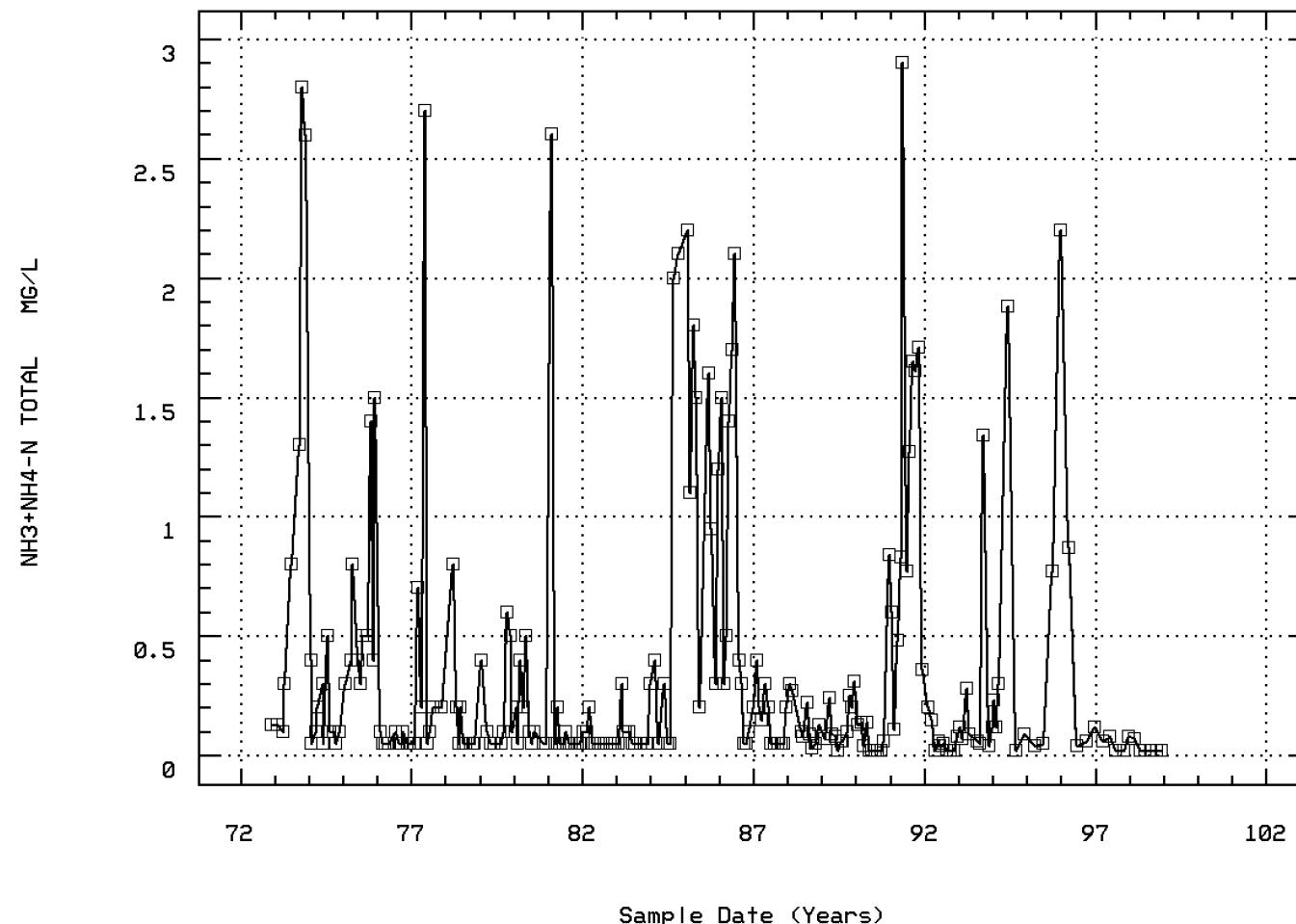
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00610

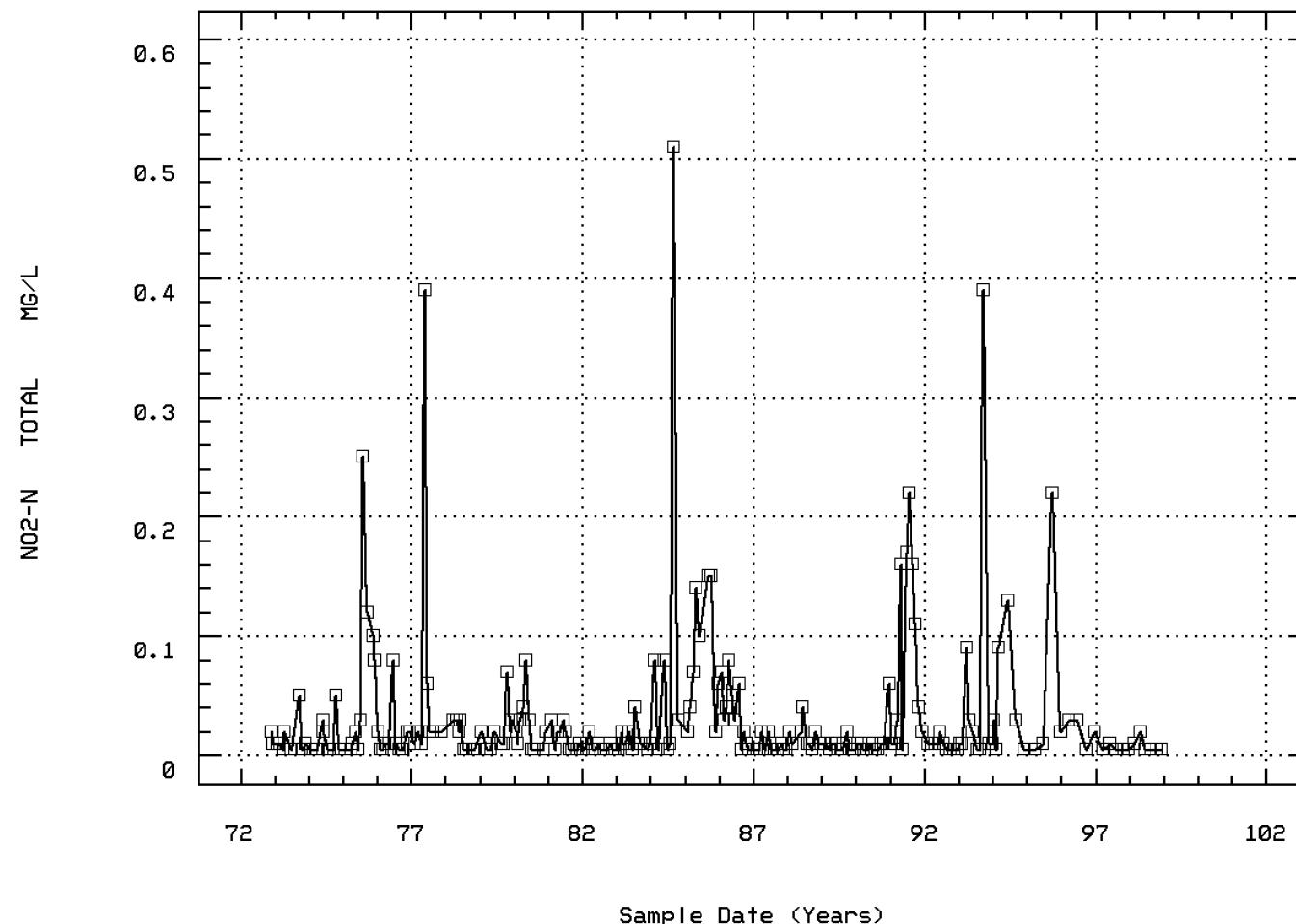
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00615

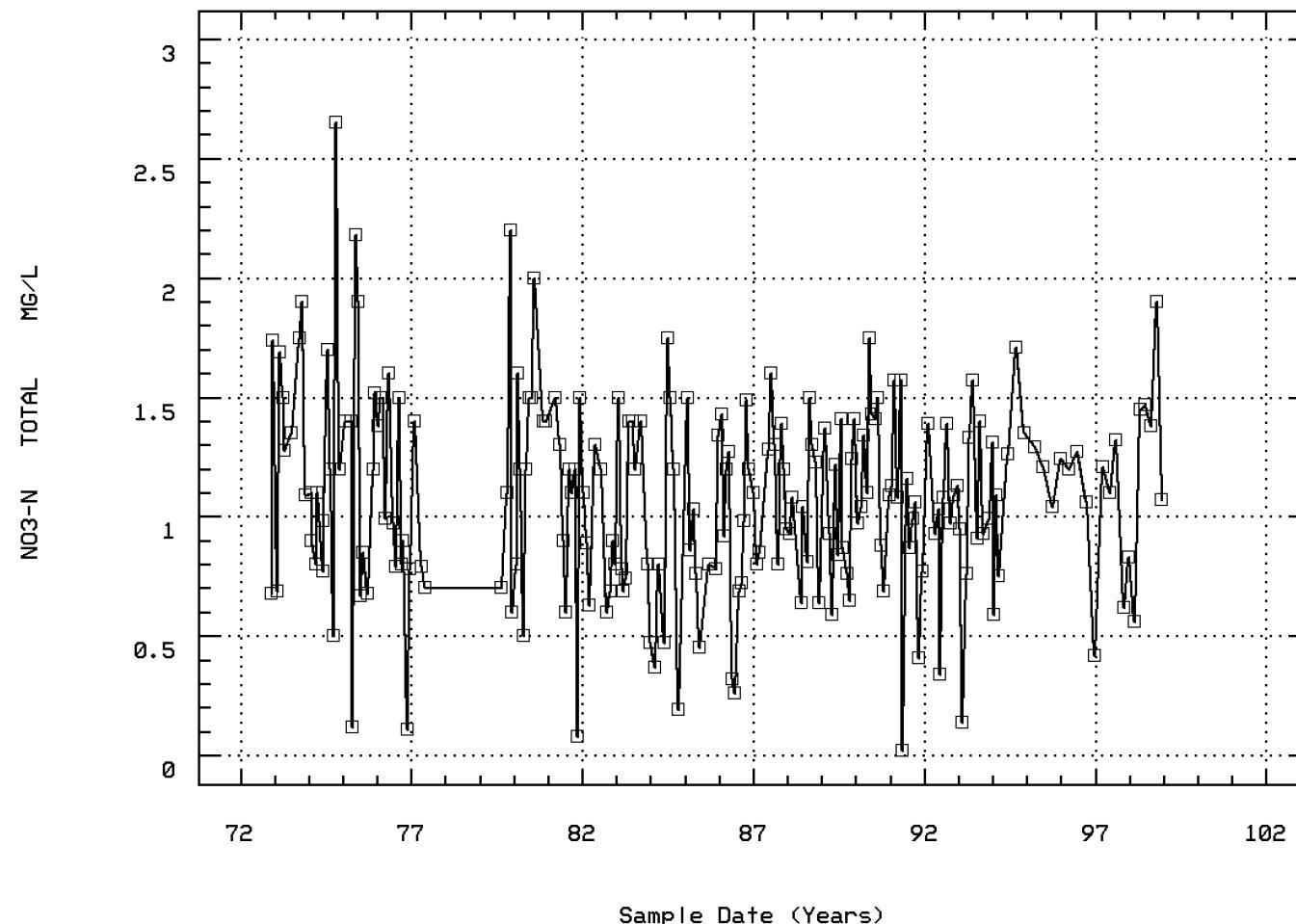
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00620

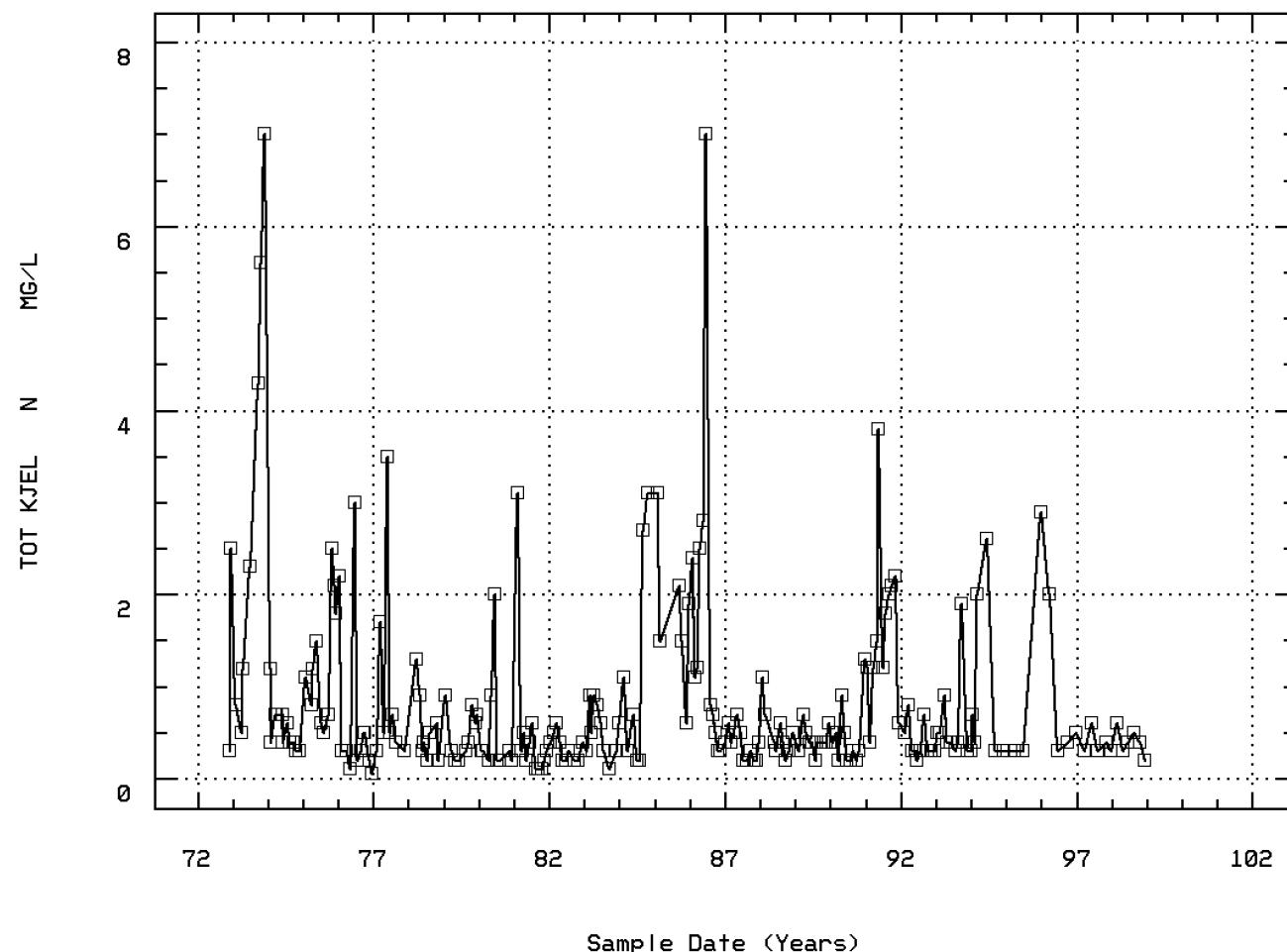
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00625

NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 5 BRIDGE

### Annual Analysis for 1969 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	2	16.95	16.95	25.	8.9	129.605	11.384	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	2	8.7	8.7	10.4	7.	5.78	2.404	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	2	3.85	3.85	5.	2.7	2.645	1.626	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	2	10.5	10.5	11.	10.	0.5	0.707	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	2	10.26	10.26	11.	10.	0.616	0.785	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	2	9.75	9.75	10.	9.5	0.125	0.354	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	2	9.682	9.682	10.	9.5	0.134	0.367	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	2	31.5	31.5	36.	27.	40.5	6.364	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	2	240.5	240.5	280.	201.	3120.5	55.861	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	2	44.	44.	53.	35.	162.	12.728	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	2	118.5	118.5	227.	10.	23544.5	153.442	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	1	133.	133.	133.	133.	0.	0.	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	1	111.	111.	111.	111.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	5	12.2	13.34	22.	6.7	38.723	6.223	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	5	8.	8.32	10.6	6.6	2.792	1.671	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	3	10.	9.	10.	7.	3.	1.732	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	3	10.	7.476	10.	7.	6.483	2.546	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	3	0.	0.033	0.1	0.	0.003	0.058	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	2	12.25	12.25	12.3	12.2	0.005	0.071	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	2	12.247	12.247	12.3	12.2	0.005	0.071	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	2	1473.5	1473.5	1695.	1252.	98124.5	313.248	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	5	713.	1013.2	2067.	142.	886790.2	941.695	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	5	42.	125.4	408.	31.	25785.8	160.58	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	5	671.	887.8	2036.	79.	770660.7	877.873	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	5	78.	121.24	318.	0.2	18358.588	135.494	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	4	18.	19.5	42.	0.	339.667	18.43	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	5	68.	108.24	296.	0.2	15901.388	126.101	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	2	0.565	0.565	1.	0.13	0.378	0.615	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	2	0.015	0.015	0.02	0.01	0.	0.007	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	2	1.21	1.21	1.739	0.68	0.561	0.749	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	2	1.4	1.4	2.5	0.3	2.42	1.556	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	5##	50.	330.	1100.	50.	208250.	456.344	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	5##	1.699	2.148	3.041	1.699	0.402	0.634	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		140.628							

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### Annual Analysis for 1973 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	8	15.3	14.388	25.	4.4	44.65	6.682	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	8	8.3	6.325	11.4	0.	20.342	4.51	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	3	7.	6.667	11.	2.	20.333	4.509	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	8	10.	10.	10.	10.	0.	0.	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	8	10.	10.	10.	10.	0.	0.	**	**	**	**

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### Annual Analysis for 1973 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	8	0.	0.	0.	0.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	1	12.2	12.2	12.2	12.2	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	1	12.2	12.2	12.2	12.2	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	1	1320.	1320.	1320.	1320.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	5	297.	540.4	1331.	146.	239329.3	489.213	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	7	25.	85.286	391.	13.	19060.238	138.059	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	7	674.	893.857	2410.	46.	712025.476	843.816	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	7	111.	173.429	386.	20.	23053.286	151.833	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	7	14.	65.286	384.	3.	19804.238	140.728	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	7	56.	109.571	324.	2.	15177.952	123.199	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	8	0.9	1.128	2.799	0.1	1.121	1.059	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	8	0.01	0.014	0.05	0.005	0.	0.015	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	8	1.425	1.406	1.899	0.69	0.155	0.393	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	7	2.299	3.099	7.	0.5	6.533	2.556	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	8##	50.	262.5	1400.	50.	226250.	475.657	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	8##	1.699	1.993	3.146	1.699	0.317	0.563	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	98.345								

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### Annual Analysis for 1974 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	10	17.5	16.	25.	6.7	31.904	5.648	7.03	11.65	19.725	24.72
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	11	9.	9.582	14.	8.	3.204	1.79	8.	8.2	10.4	13.4
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	10	8.8	8.76	12.	6.5	3.765	1.94	6.55	7.	10.125	11.85
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	10	7.899	7.193	12.	6.5	6.494	2.548	6.55	7.	10.125	11.85
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	10	0.013	0.064	0.316	0.	0.01	0.1	0.	0.	0.1	0.295
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	9	10.5	9.422	12.	6.6	5.809	2.41	6.6	6.9	11.6	12.
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	9	10.5	7.211	12.	6.6	11.308	3.363	6.6	6.9	11.6	12.
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	9	0.	0.061	0.251	0.	0.008	0.089	0.	0.	0.126	0.251
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	10	68.	159.4	575.	14.	33139.156	182.042	14.8	26.5	272.5	547.
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	11	319.	312.909	678.	115.	23873.691	154.511	129.	198.	374.	627.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	11	38.	53.545	148.	0.	1828.273	42.758	5.2	27.	68.	141.
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	11	206.	259.364	610.	84.	21216.455	145.659	96.6	171.	348.	566.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	58.	65.818	184.	0.	3661.964	60.514	0.	14.	96.	179.2
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	12.	24.091	112.	0.	1064.091	32.62	0.	2.	38.	98.4
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	34.	41.727	116.	0.	1314.018	36.249	0.	2.	72.	107.2
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.1	0.177	0.5	0.05	0.024	0.156	0.05	0.05	0.3	0.48
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11##	0.005	0.013	0.05	0.005	0.	0.015	0.005	0.005	0.02	0.046
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	1.099	1.172	2.649	0.5	0.333	0.577	0.554	0.8	1.199	2.459
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	0.4	0.554	1.199	0.3	0.071	0.266	0.3	0.4	0.7	1.099
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11##	50.	1372.727	6000.	50.	4246681.818	2060.748	50.	50.	2300.	5660.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11##	1.699	2.439	3.778	1.699	0.805	0.897	1.699	1.699	3.362	3.749
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	274.531								

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### Annual Analysis for 1975 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	14.4	15.4	22.2	6.7	29.532	5.434	7.14	10.	20.	22.2
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	12	8.25	8.975	12.	6.2	3.797	1.948	6.5	7.5	11.	12.
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	10	7.	6.81	7.3	6.	0.141	0.375	6.05	6.5	7.	7.27

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### Annual Analysis for 1975 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	10	7.	6.631	7.3	6.	0.177	0.42	6.05	6.5	7.	7.27
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	10	0.1	0.234	1.	0.05	0.081	0.285	0.055	0.1	0.316	0.932
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	11	6.8	6.773	7.3	6.4	0.062	0.249	6.42	6.6	6.9	7.24
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	11	6.8	6.714	7.3	6.4	0.066	0.257	6.42	6.6	6.9	7.24
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.158	0.193	0.398	0.05	0.01	0.101	0.06	0.126	0.251	0.382
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	11	23.	29.545	88.	8.	442.873	21.045	9.8	17.	33.	77.8
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	10	155.	166.	285.	128.	1993.778	44.652	128.9	140.	170.25	274.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	10	78.	73.2	133.	24.	943.956	30.724	25.1	52.25	88.5	128.7
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	10	86.	92.8	195.	47.	1773.289	42.11	47.3	67.25	105.75	187.2
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	9.	16.1	50.	0.	307.211	17.527	0.	1.5	29.75	48.8
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	4.	6.	22.	0.	43.556	6.6	0.	1.5	8.5	20.8
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	2.	10.1	34.	0.	165.433	12.862	0.	0.	21.25	33.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.5	0.682	1.5	0.3	0.189	0.435	0.3	0.4	1.	1.48
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.025	0.063	0.25	0.005	0.006	0.079	0.005	0.005	0.105	0.237
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	1.299	1.191	2.179	0.12	0.385	0.621	0.175	0.678	1.614	2.151
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	1.099	1.254	2.5	0.5	0.422	0.65	0.52	0.7	1.799	2.42
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	1	15.	15.	15.	15.	0.	0.	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	1900.	2790.909	6000.	50.	6474409.091	2544.486	50.	500.	5800.	6000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	3.279	3.068	3.778	1.699	0.619	0.787	1.699	2.699	3.763	3.778
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		1170.258							

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### Annual Analysis for 1976 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	12	16.4	15.5	25.6	5.6	48.211	6.943	6.08	7.75	21.925	24.91
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	12	9.5	9.717	13.	7.4	2.583	1.607	7.61	8.45	11.05	12.52
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	12	7.2	7.233	7.5	6.7	0.072	0.267	6.79	7.025	7.5	7.5
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	12	7.2	7.154	7.5	6.7	0.078	0.28	6.79	7.025	7.5	7.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	12	0.063	0.07	0.2	0.032	0.002	0.049	0.032	0.032	0.095	0.17
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	11	6.6	6.627	7.1	6.2	0.088	0.297	6.22	6.3	6.9	7.08
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	11	6.6	6.541	7.1	6.2	0.096	0.311	6.22	6.3	6.9	7.08
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.251	0.288	0.631	0.079	0.034	0.183	0.084	0.126	0.501	0.605
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	12	35.	35.833	66.	22.	133.788	11.567	22.9	27.	40.75	59.1
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	12	161.5	176.833	261.	124.	2239.061	47.319	126.4	137.75	207.5	261.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	12	68.5	68.167	127.	26.	782.333	27.97	26.6	50.75	84.25	116.8
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	11	87.	104.091	179.	55.	1854.491	43.064	57.4	69.	153.	176.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	6.	8.667	30.	0.5	84.015	9.166	0.5	2.25	15.5	27.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	2.	3.25	16.	0.	21.614	4.649	0.	0.125	4.	13.6
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	2.5	5.5	28.	0.	75.136	8.668	0.	0.125	5.5	25.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	12##	0.05	0.221	1.	0.05	0.133	0.365	0.05	0.05	0.1	1.
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	12	0.01	0.016	0.08	0.005	0.	0.021	0.005	0.005	0.02	0.062
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	12	0.98	1.068	1.599	0.11	0.194	0.44	0.311	0.793	1.5	1.569
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	12	0.3	0.721	3.	0.05	0.86	0.928	0.065	0.2	0.875	2.76
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	12	1300.	2058.333	6000.	300.	4259015.152	2063.738	300.	400.	3050.	6000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	12	3.092	3.094	3.778	2.477	0.229	0.478	2.477	2.569	3.479	3.778
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		1240.463							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	9	5.	8.689	21.	1.1	63.839	7.99	1.1	2.2	16.5	21.
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	9	7.6	8.267	12.2	4.8	4.88	2.209	4.8	6.8	9.9	12.2
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	9	7.5	7.511	7.8	7.3	0.016	0.127	7.3	7.5	7.5	7.8
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	9	7.5	7.496	7.8	7.3	0.016	0.128	7.3	7.5	7.5	7.8
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	9	0.032	0.032	0.05	0.016	0.	0.009	0.016	0.032	0.032	0.05
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	5	7.	6.94	7.3	6.4	0.113	0.336	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	5	7.	6.822	7.3	6.4	0.13	0.361	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	5	0.1	0.151	0.398	0.05	0.02	0.141	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	4	47.5	51.	73.	36.	318.	17.833	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	8	170.5	174.75	212.	135.	655.071	25.594	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	8	42.	46.5	73.	35.	147.429	12.142	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	8	132.	128.25	170.	94.	837.071	28.932	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	5.5	6.688	17.	0.5	24.496	4.949	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	2.	2.438	6.	0.	4.246	2.06	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	4.	4.313	11.	0.5	13.638	3.693	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	8	0.2	0.525	2.699	0.05	0.815	0.903	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	8	0.02	0.069	0.39	0.01	0.017	0.131	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	4	0.895	0.972	1.399	0.7	0.097	0.311	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	8	0.5	0.987	3.5	0.3	1.238	1.113	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	7	4700.	3350.	6000.	50.	677083.333	2602.082	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	7	3.672	3.214	3.778	1.699	0.593	0.77	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	1638.274								

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### Annual Analysis for 1978 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	9	18.	18.5	29.	11.	31.688	5.629	11.	14.5	22.75	29.
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	9	7.6	8.222	10.4	6.	2.052	1.432	6.	7.25	9.4	10.4
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	9	7.3	7.133	7.5	6.5	0.153	0.391	6.5	6.75	7.45	7.5
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	9	7.3	6.955	7.5	6.5	0.188	0.434	6.5	6.75	7.45	7.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	9	0.05	0.111	0.316	0.032	0.014	0.118	0.032	0.036	0.208	0.316
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	6	7.35	7.25	7.4	6.8	0.055	0.235	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	6	7.347	7.186	7.4	6.8	0.06	0.245	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	6	0.045	0.065	0.158	0.04	0.002	0.047	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	5	44.	38.	54.	3.	406.5	20.162	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	8	158.5	166.	220.	135.	740.286	27.208	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	8	32.5	31.5	38.	25.	18.	4.243	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	8	127.5	134.5	191.	101.	847.429	29.111	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	1.5	4.438	22.	0.5	53.317	7.302	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	1.25	2.563	12.	0.	15.603	3.95	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	8##	0.75	2.125	10.	0.5	10.839	3.292	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	8##	0.05	0.181	0.8	0.05	0.067	0.259	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	8##	0.013	0.016	0.03	0.005	0.	0.012	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	8	0.45	0.55	1.299	0.2	0.146	0.381	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	1	8.	8.	8.	8.	0.	0.	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	8	600.	1293.75	6400.	50.	4394598.214	2096.33	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	8	2.753	2.751	3.806	1.699	0.366	0.605	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	563.303								

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### Annual Analysis for 1979 - Station RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	9	13.5	14.722	21.5	5.	34.382	5.864	5.	10.5	21.	21.5
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	5	228.	210.6	266.	109.	3587.8	59.898	**	**	**	**
00300p OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	9	9.4	9.833	14.	7.7	3.908	1.977	7.7	8.15	10.9	14.
00310 BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	5	3.	6.	20.	2.	61.5	7.842	**	**	**	**
00340 COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	5	20.	32.6	79.	18.	681.8	26.111	**	**	**	**
00400p PH (STANDARD UNITS)	02/03/69-12/07/98	9	7.5	7.3	7.6	6.5	0.14	0.374	6.5	7.05	7.6	7.6
00400p CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	9	7.5	7.119	7.6	6.5	0.177	0.421	6.5	7.05	7.6	7.6
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	9	0.032	0.076	0.316	0.025	0.009	0.094	0.025	0.025	0.09	0.316
00403 PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	7	7.3	7.357	7.8	7.1	0.053	0.23	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	7	7.3	7.313	7.8	7.1	0.055	0.235	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	7	0.05	0.049	0.079	0.016	0.	0.021	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	7	38.	62.143	196.	35.	3515.143	59.289	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	7	138.	131.429	175.	31.	2464.286	49.642	**	**	**	**
00505 RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	7	31.	51.143	131.	27.	1515.143	38.925	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	7	106.	95.143	148.	4.	2017.143	44.913	**	**	**	**
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	9	5.	19.611	130.	0.5	1729.861	41.592	0.5	3.	11.5	130.
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	9	3.	4.833	24.	0.	59.375	7.706	0.	0.25	6.	24.
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	5.	16.438	106.	0.	1317.96	36.304	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	0.1	0.217	0.6	0.05	0.048	0.219	0.05	0.05	0.45	0.6
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	0.02	0.021	0.07	0.005	0.	0.02	0.005	0.008	0.025	0.07
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	5	1.	1.12	2.2	0.6	0.407	0.638	**	**	**	**
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	9	0.4	0.489	0.9	0.2	0.071	0.267	0.2	0.25	0.75	0.9
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	5	0.1	0.08	0.1	0.05	0.001	0.027	**	**	**	**
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	5	0.04	0.048	0.1	0.01	0.001	0.037	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	5	13.	18.4	39.	9.	142.8	11.95	**	**	**	**
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	9	8000.	4588.889	8000.	50.	16402986.111	4050.06	50.	275.	8000.	8000.
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	9	3.903	3.162	3.903	1.699	0.918	0.958	1.699	2.199	3.903	3.903
	GEOMETRIC MEAN =				1451.91							

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### Annual Analysis for 1980 - Station RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	15.5	14.136	27.	4.5	52.705	7.26	4.9	7.	18.	26.2
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	10	265.	267.3	418.	164.	5693.122	75.453	165.3	197.25	308.25	408.
00300p OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	11	9.	9.055	12.1	7.2	2.551	1.597	7.22	7.4	10.2	11.92
00310 BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	10	2.5	3.5	10.	1.	8.944	2.991	1.	1.	5.5	9.7
00340 COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	10	12.5	15.6	35.	4.	101.822	10.091	4.1	6.5	24.25	34.
00400p PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.3	7.309	9.	6.4	0.419	0.647	6.5	6.9	7.4	8.7
00400p CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.3	7.035	9.	6.4	0.502	0.708	6.5	6.9	7.4	8.7
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.05	0.092	0.398	0.001	0.012	0.109	0.007	0.04	0.126	0.344
00403 PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	3	7.	6.9	7.	6.7	0.03	0.173	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	3	7.	6.876	7.	6.7	0.031	0.176	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	3	0.1	0.133	0.2	0.1	0.003	0.057	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	3	26.	165.667	445.	26.	58520.333	241.91	**	**	**	**
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	5.	9.75	38.	2.5	125.792	11.216	2.5	2.5	11.75	36.2
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	4.	4.65	10.	1.	8.392	2.897	1.15	2.5	7.25	9.8
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	2.5	5.85	31.	0.	85.947	9.271	0.	1.5	5.5	28.9
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.1	0.17	0.5	0.05	0.026	0.16	0.05	0.05	0.25	0.49
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.02	0.025	0.08	0.005	0.001	0.023	0.005	0.005	0.033	0.076
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	1.4	1.31	2.	0.5	0.177	0.42	0.53	1.1	1.525	1.96
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	10	0.3	0.56	2.	0.2	0.345	0.587	0.2	0.2	0.925	1.9
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	10##	0.075	0.125	0.3	0.05	0.011	0.103	0.05	0.05	0.225	0.3
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	10	0.03	0.047	0.14	0.01	0.002	0.048	0.01	0.01	0.083	0.138
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	10	9.5	9.5	14.	7.	6.722	2.593	7.	7.	11.5	13.9
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	9	1500.	2672.222	6900.	50.	7004444.444	2646.591	50.	400.	5450.	6900.

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### Annual Analysis for 1980 - Station RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	9	3.176	3.054	3.839	1.699	0.59	0.768	1.699	2.423	3.732	3.839
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		1132.37							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	14.	14.791	26.	2.	71.461	8.453	2.6	5.	22.5	26.
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	245.	259.455	409.	182.	3105.273	55.725	191.6	240.	272.	382.4
00300p OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	11	8.9	9.064	12.8	6.8	3.725	1.93	6.94	7.6	9.6	12.7
00310 BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	11	1.	9.864	90.	0.5	709.205	26.631	0.6	1.	4.	73.2
00340 COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	12.	22.455	124.	5.	1161.073	34.075	5.6	9.	21.	103.6
00400p PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.	6.982	7.7	6.5	0.098	0.312	6.54	6.7	7.1	7.6
00400p CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.	6.894	7.7	6.5	0.106	0.326	6.54	6.7	7.1	7.6
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.1	0.128	0.316	0.02	0.007	0.082	0.029	0.079	0.2	0.293
00403 PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	11	6.9	6.845	7.1	6.5	0.047	0.216	6.52	6.7	7.1	7.1
00403 CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	11	6.9	6.797	7.1	6.5	0.049	0.222	6.52	6.7	7.1	7.1
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.126	0.16	0.316	0.079	0.006	0.079	0.079	0.079	0.2	0.303
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	11	33.	32.364	54.	5.	158.255	12.58	9.	27.	39.	52.6
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	8.	7.136	18.	2.5	26.505	5.148	2.5	2.5	10.	16.8
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	2.5	4.136	10.	2.	6.605	2.57	2.1	2.5	6.	9.4
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	2.5	4.136	8.	2.	4.605	2.146	2.1	2.5	6.	7.8
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11 ##	0.05	0.3	2.6	0.05	0.584	0.764	0.05	0.05	0.1	2.12
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.01	0.014	0.03	0.005	0.	0.01	0.005	0.005	0.02	0.03
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	1.1	1.035	1.5	0.08	0.168	0.41	0.184	0.9	1.3	1.5
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	0.3	0.536	3.1	0.1	0.751	0.866	0.1	0.1	0.5	2.6
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11 ##	0.05	0.059	0.1	0.05	0.	0.02	0.05	0.05	0.05	0.1
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	11	0.02	0.474	5.	0.01	2.254	1.501	0.01	0.01	0.02	4.012
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	11	8.	13.455	77.	2.	450.673	21.229	2.4	5.	9.	63.8
31616p FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	400.	1131.818	6100.	50.	3437136.364	1853.952	60.	200.	800.	5500.
31616p LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	2.602	2.656	3.785	1.699	0.359	0.599	1.759	2.301	2.903	3.727
31616p GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		452.633							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	15.	14.236	26.	0.1	51.035	7.144	1.28	10.5	19.	25.1
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	247.	251.818	301.	213.	921.164	30.351	213.8	222.	269.	300.
00300p OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	11	8.5	8.664	11.8	6.2	3.039	1.743	6.24	7.3	10.3	11.54
00310 BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	10	2.	2.	4.	1.	1.111	1.054	1.	1.	3.	3.9
00340 COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	16.	14.273	27.	5.	40.218	6.342	5.6	10.	18.	25.6
00400p PH (STANDARD UNITS)	02/03/69-12/07/98	10	7.	7.06	7.5	6.7	0.067	0.259	6.71	6.875	7.325	7.49
00400p CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	10	7.	6.998	7.5	6.7	0.071	0.267	6.71	6.875	7.325	7.49
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	10	0.1	0.101	0.2	0.032	0.003	0.052	0.032	0.048	0.134	0.195
00403 PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	1	48.	48.	48.	48.	0.	0.	**	**	**	**
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	11 ##	2.5	5.091	11.	2.5	10.341	3.216	2.5	2.5	8.	10.6
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	11 ##	2.5	3.818	6.	2.5	2.614	1.617	2.5	2.5	6.	6.
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	11 ##	2.5	2.636	7.	0.	2.705	1.645	0.4	2.	2.5	6.2
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11 ##	0.05	0.073	0.2	0.05	0.002	0.047	0.05	0.05	0.1	0.18

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11 ##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.018
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.9	0.919	1.3	0.6	0.052	0.229	0.606	0.69	1.1	1.28
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	0.3	0.336	0.6	0.2	0.019	0.136	0.2	0.2	0.4	0.58
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11 ##	0.05	0.073	0.3	0.05	0.006	0.075	0.05	0.05	0.05	0.25
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	11	0.02	0.02	0.04	0.01	0.	0.01	0.01	0.01	0.03	0.038
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	11	4.	4.091	7.	1.	5.491	2.343	1.	1.	6.	7.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	10	500.	920.	4700.	100.	1879555.556	1370.969	110.	200.	850.	4360.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	10	2.699	2.701	3.672	2.	0.218	0.467	2.03	2.301	2.912	3.616
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	502.499								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	9	11.5	12.333	23.	1.	53.25	7.297	1.	6.75	18.75	23.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	10	237.	227.9	291.	109.	3028.767	55.034	115.7	197.	273.5	289.4
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	9	10.4	10.589	12.6	8.	2.731	1.653	8.	9.15	12.2	12.6
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	9	2.	3.722	19.	0.5	33.819	5.815	0.5	1.	3.	19.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	10	13.	16.2	46.	6.	137.956	11.745	6.1	8.5	20.75	43.7
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	7	7.	7.	7.5	6.7	0.093	0.306	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	7	7.	6.921	7.5	6.7	0.101	0.317	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	7	0.1	0.12	0.2	0.032	0.005	0.068	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	1	57.	57.	57.	57.	0.	0.	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	6.5	12.2	61.	2.5	307.233	17.528	2.5	4.375	11.25	56.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	3.5	4.5	13.	2.	11.333	3.367	2.	2.375	5.5	12.4
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	3.25	8.2	48.	0.	207.678	14.411	0.	1.5	7.5	44.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	10 ##	0.075	0.115	0.3	0.05	0.01	0.1	0.05	0.05	0.15	0.3
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.01	0.014	0.04	0.005	0.	0.011	0.005	0.005	0.02	0.038
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	1.	1.038	1.5	0.47	0.143	0.378	0.492	0.728	1.4	1.49
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	10	0.55	0.53	0.9	0.1	0.078	0.279	0.12	0.3	0.825	0.9
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	10 ##	0.05	0.07	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	10	0.02	0.024	0.06	0.01	0.	0.018	0.01	0.01	0.035	0.059
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	10	7.5	7.7	16.	2.	19.567	4.423	2.1	3.	11.25	15.6
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	9	500.	1688.889	8000.	100.	6288611.111	2507.71	100.	300.	2150.	8000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	9	2.699	2.886	3.903	2.	0.332	0.577	2.	2.477	3.318	3.903
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	768.331								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	7	21.	18.357	21.5	11.	19.393	4.404	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	7	209.	194.571	283.	101.	3413.286	58.423	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	6	9.1	9.333	11.4	8.2	1.271	1.127	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	7	3.	4.571	12.	1.	16.952	4.117	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	7	12.	20.143	46.	4.	284.81	16.876	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	7	6.6	6.854	8.4	6.1	0.535	0.731	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	7	6.6	6.575	8.4	6.1	0.626	0.791	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	7	0.251	0.266	0.794	0.004	0.063	0.252	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	7	10.	94.214	346.	2.5	22709.821	150.698	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	7	5.	11.786	36.	2.5	182.988	13.527	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	7	3.	82.786	310.	0.	18787.488	137.067	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	7	0.3	0.707	2.1	0.05	0.861	0.928	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	7	0.03	0.103	0.51	0.005	0.033	0.183	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	7	0.8	0.897	1.75	0.19	0.359	0.599	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	7	0.7	1.186	3.1	0.2	1.488	1.22	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	7	0.22	0.317	1.	0.05	0.117	0.341	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	7	0.22	0.286	0.89	0.02	0.095	0.308	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	7	6.	10.143	25.	2.	76.476	8.745	**	**	**	**
31615p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	7	2500.	4050.	8000.	50.	12249166.667	3499.881	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	7	3.398	3.288	3.903	1.699	0.61	0.781	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	1939.877								

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### Annual Analysis for 1985 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	16.5	15.273	24.5	4.	38.118	6.174	4.6	12.	21.	24.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	259.	250.091	281.	203.	857.891	29.29	204.	211.	274.	280.2
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	11	8.7	8.982	13.3	7.1	3.452	1.858	7.16	7.5	9.8	12.72
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	11	3.	4.136	13.	0.5	10.905	3.302	0.8	2.	5.	11.6
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	11	15.	16.091	23.	6.	27.691	5.262	7.2	12.	21.	23.
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	11	6.9	6.882	7.7	6.3	0.156	0.395	6.32	6.6	7.	7.62
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	11	6.9	6.741	7.7	6.3	0.177	0.421	6.32	6.6	7.	7.62
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.126	0.182	0.501	0.02	0.022	0.148	0.026	0.1	0.251	0.481
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	2	157.	157.	173.	141.	512.	22.627	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	2	36.	36.	37.	35.	2.	1.414	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	2	121.	121.	138.	104.	578.	24.042	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	5.	17.091	124.	2.5	1294.991	35.986	2.5	2.5	8.	104.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	3.	4.5	16.	2.5	16.35	4.044	2.5	2.5	4.	14.2
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	2.5	13.409	108.	2.	1003.441	31.677	2.	2.	4.	89.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	1.2	1.206	2.2	0.2	0.437	0.661	0.2	0.625	1.7	2.2
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	0.07	0.083	0.15	0.02	0.003	0.054	0.02	0.03	0.145	0.15
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	0.86	0.947	1.5	0.45	0.101	0.318	0.45	0.77	1.185	1.5
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	6	1.7	1.783	3.1	0.6	0.682	0.826	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	6	0.2	0.208	0.4	0.05	0.016	0.128	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	9	0.21	0.214	0.4	0.07	0.01	0.101	0.07	0.145	0.29	0.4
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	11	6.	5.636	10.	1.	5.655	2.378	1.4	5.	7.	9.6
00900	HARDNESS, TOTAL (MG/L AS CaCO3)	04/22/85-12/07/98	1	21.	21.	21.	21.	0.	0.	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	8000.	6300.	8000.	200.	7314000.	2704.441	700.	4800.	8000.	8000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	3.903	3.68	3.903	2.301	0.232	0.481	2.527	3.681	3.903	3.903
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	4789.762								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	12	13.	14.617	24.	6.	34.082	5.838	6.9	9.625	20.	22.92
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	12	257.	260.417	362.	194.	1806.447	42.502	198.5	238.25	281.5	340.4
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	12	9.3	8.783	11.4	4.8	5.102	2.259	5.1	6.5	10.95	11.34
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	12	2.5	3.625	11.	0.5	10.324	3.213	0.65	1.	6.	9.8
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	12	11.5	12.75	25.	1.	50.75	7.124	2.5	8.	19.	24.4
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	12	7.155	7.093	7.75	6.4	0.153	0.391	6.46	6.768	7.313	7.684

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### Annual Analysis for 1986 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	12	7.153	6.931	7.75	6.4	0.181	0.426	6.46	6.767	7.313	7.684
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	12	0.07	0.117	0.398	0.018	0.013	0.112	0.021	0.049	0.171	0.354
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	8.	10.292	24.	2.5	59.612	7.721	2.5	3.125	17.75	23.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	3.5	4.375	10.	2.5	5.278	2.297	2.5	2.625	5.75	9.1
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	3.75	6.542	21.	0.	42.566	6.524	0.6	2.125	11.	19.5
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	12	0.35	0.717	2.1	0.05	0.545	0.738	0.05	0.125	1.475	1.98
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	12	0.03	0.034	0.08	0.005	0.001	0.026	0.005	0.006	0.058	0.077
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	12	1.04	0.965	1.49	0.26	0.16	0.401	0.278	0.698	1.253	1.472
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	12	0.95	1.667	7.	0.3	3.626	1.904	0.3	0.425	2.475	5.74
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	12	0.2	0.288	1.	0.05	0.091	0.302	0.05	0.063	0.3	0.94
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	12	0.1	0.198	1.	0.005	0.084	0.29	0.01	0.03	0.198	0.859
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	12	5.5	5.75	10.	4.	3.477	1.865	4.	4.	6.75	9.4
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	1200.	3540.909	8000.	50.	13945409.091	3734.355	60.	200.	8000.	8000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	3.079	3.065	3.903	1.699	0.702	0.838	1.759	2.301	3.903	3.903
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		1161.498							

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### Annual Analysis for 1987 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	14.1	14.327	24.5	4.5	49.708	7.05	5.	8.	22.	24.1
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	11	298.	286.909	329.	245.	885.491	29.757	246.6	260.	312.	327.8
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	9	10.2	10.011	11.8	8.5	1.399	1.183	8.5	8.8	11.1	11.8
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	11	1.	2.182	10.	0.5	7.314	2.704	0.5	1.	2.	8.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	13.	29.818	204.	1.	3378.564	58.125	2.2	7.	20.	167.6
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.31	7.406	7.88	6.95	0.088	0.297	6.988	7.19	7.71	7.87
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.31	7.323	7.88	6.95	0.096	0.309	6.988	7.19	7.71	7.87
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.049	0.048	0.112	0.013	0.001	0.029	0.014	0.019	0.065	0.104
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	11##	2.5	7.273	27.	2.5	57.268	7.568	2.5	2.5	11.	24.2
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	10##	2.5	3.7	8.	2.5	3.4	1.844	2.5	2.5	5.	7.7
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	2.5	5.773	19.	2.	25.968	5.096	2.1	2.5	8.	17.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.15	0.155	0.4	0.05	0.014	0.119	0.05	0.05	0.2	0.38
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11##	0.005	0.008	0.02	0.005	0.	0.006	0.005	0.005	0.01	0.02
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	1.	1.106	1.6	0.8	0.07	0.265	0.8	0.85	1.3	1.558
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	0.4	0.382	0.7	0.2	0.032	0.178	0.2	0.2	0.5	0.68
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11##	0.05	0.155	1.	0.05	0.079	0.281	0.05	0.05	0.1	0.82
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	11	0.02	0.02	0.03	0.005	0.	0.007	0.008	0.02	0.02	0.03
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	7	6.	6.429	10.	4.	5.619	2.37	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	10##	50.	1025.	8000.	50.	6160138.889	2481.963	50.	50.	825.	7320.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	10##	1.699	2.172	3.903	1.699	0.649	0.805	1.699	1.699	2.904	3.821
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		148.599							

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### Annual Analysis for 1988 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	12	15.75	14.9	23.9	4.2	66.375	8.147	4.29	6.775	23.	23.87
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	8	292.5	317.875	476.	274.	4346.411	65.927	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	12	9.3	10.083	13.7	7.8	4.842	2.2	7.83	8.	12.375	13.4
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	8	1.	1.813	5.	0.5	2.281	1.51	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	8	13.5	13.063	35.	0.5	107.317	10.359	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	12	7.435	7.568	9.06	6.55	0.593	0.77	6.649	7.018	7.633	9.06
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	12	7.435	7.188	9.06	6.55	0.75	0.866	6.649	7.018	7.633	9.06

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### Annual Analysis for 1988 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	12	0.037	0.065	0.282	0.001	0.006	0.08	0.001	0.023	0.105	0.237
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	1	6.6	6.6	6.6	6.6	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	1	6.6	6.6	6.6	6.6	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	1	0.251	0.251	0.251	0.251	0.251	0.251	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	2.5	19.375	131.	1.	2042.196	45.191	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	2.25	5.25	22.	1.	54.714	7.397	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	8	1.75	15.125	109.	0.	1441.768	37.971	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	0.1	0.141	0.3	0.03	0.01	0.098	0.03	0.065	0.245	0.3
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	0.01	0.016	0.04	0.005	0.	0.011	0.005	0.01	0.02	0.04
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	1.04	1.019	1.5	0.64	0.087	0.295	0.64	0.725	1.265	1.5
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	9	0.4	0.5	1.1	0.2	0.075	0.274	0.2	0.3	0.65	1.1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	9	0.1	0.089	0.2	0.05	0.002	0.049	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	9	0.02	0.018	0.03	0.01	0.	0.007	0.01	0.01	0.02	0.03
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	6	3.	3.133	4.4	1.9	1.143	1.069	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	1	78.	78.	78.	78.	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	2	31.5	31.5	42.	21.	220.5	14.849	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	100.	881.818	8000.	50.	5592636.364	2364.876	50.	50.	400.	6480.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	2.	2.244	3.903	1.699	0.437	0.661	1.699	1.699	2.602	3.643
	GEOMETRIC MEAN =				175.287								

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### Annual Analysis for 1989 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	15.5	14.818	23.	1.2	48.334	6.952	2.78	9.3	22.	22.98
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	11	4.	29.655	280.	2.4	6899.063	83.061	2.4	2.5	6.8	225.88
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	7	257.	252.571	288.	191.	1398.952	37.403	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	12	9.75	10.6	14.8	8.	5.244	2.29	8.03	8.4	12.375	14.32
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	10	1.5	2.5	7.	0.5	5.333	2.309	0.5	0.875	3.75	6.9
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	12.	13.091	23.	3.	32.491	5.7	4.	10.	18.	22.2
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.33	7.465	9.28	4.97	1.266	1.125	5.302	7.	8.16	9.088
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.33	5.989	9.28	4.97	3.663	1.914	5.302	7.	8.16	9.088
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.047	1.025	10.715	0.001	10.334	3.215	0.001	0.007	0.1	8.619
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	11	6.9	6.618	7.2	5.	0.5	0.707	5.12	6.4	7.1	7.2
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	11	6.9	5.9	7.2	5.	1.067	1.033	5.12	6.4	7.1	7.2
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.126	1.258	10.	0.	0.063	8.918	2.986	0.063	0.079	0.398
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	11	25.	22.455	37.	3.	124.673	11.166	3.	16.	28.	36.4
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	8	179.5	241.875	612.	133.	24637.268	156.963	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	8	44.	46.	98.	16.	564.571	23.761	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	8	151.	195.875	514.	99.	18498.411	136.009	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	2.	42.364	434.	0.5	16877.005	129.912	0.5	2.	7.	348.6
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	2.	6.136	52.	0.5	232.255	15.24	0.5	0.5	3.	42.2
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	1.	36.545	382.	0.5	13131.373	114.592	0.5	0.5	5.	306.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.09	0.135	0.31	0.02	0.009	0.097	0.028	0.06	0.24	0.298
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.018
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.93	1.026	1.41	0.59	0.097	0.311	0.602	0.76	1.37	1.41
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	0.4	0.427	0.7	0.2	0.018	0.135	0.22	0.4	0.5	0.68
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11##	0.05	0.068	0.1	0.05	0.001	0.025	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	11	0.01	0.012	0.02	0.01	0.	0.004	0.01	0.01	0.01	0.02
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	11	4.3	4.355	7.4	2.4	1.861	1.364	2.54	3.2	5.3	6.98
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	10	82.	86.4	148.	56.	591.822	24.327	57.2	72.5	90.5	142.4
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	9	21.	21.667	35.	16.	33.	5.745	16.	17.	23.	35.
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	9	57.	69.444	164.	34.	1425.278	37.753	34.	54.5	73.	164.
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	10	0.135	0.135	0.15	0.12	0.	0.011	0.12	0.128	0.143	0.15

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	11 ##	50.	254.545	1100.	50.	111227.273	333.508	50.	1.699	50.	400.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	11 ##	1.699	2.111	3.041	1.699	0.264	0.514	1.699	2.602	400.	2.989
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	129.027								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1990 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	15.1	15.136	23.3	7.8	29.373	5.42	7.92	9.4	19.2	23.18
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	12	4.85	8.258	24.	1.7	56.383	7.509	2.09	3.9	13.775	22.95
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	1	19.	19.	19.	0.	0.	0.	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	11	9.2	9.591	12.2	7.5	2.071	1.439	7.68	8.5	10.7	12.1
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	12	2.	2.208	6.	0.5	2.884	1.698	0.65	1.	2.75	5.7
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	10.	11.636	24.	4.	33.655	5.801	4.6	8.	13.	23.2
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.36	7.257	7.74	5.9	0.261	0.511	6.116	7.13	7.61	7.734
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	11	7.36	6.803	7.74	5.9	0.488	0.699	6.116	7.13	7.61	7.734
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.044	0.157	1.259	0.018	0.134	0.366	0.018	0.025	0.074	1.028
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	12	6.9	6.883	7.2	6.4	0.06	0.244	6.46	6.725	7.1	7.2
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	12	6.9	6.817	7.2	6.4	0.064	0.254	6.46	6.725	7.1	7.2
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	12	0.126	0.152	0.398	0.063	0.009	0.096	0.063	0.079	0.189	0.354
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	12	32.	33.667	47.	25.	54.061	7.353	25.	28.25	38.75	46.4
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	12	154.5	151.583	186.	121.	450.629	21.228	122.8	129.5	164.	184.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	12	31.	29.167	42.	6.	103.061	10.152	10.2	22.	36.5	41.4
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	12	124.	122.417	146.	87.	301.356	17.36	90.6	111.25	133.5	145.4
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	3.	5.458	25.	0.5	50.657	7.117	0.5	0.625	8.5	20.8
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	1.5	2.167	6.	0.5	3.697	1.923	0.5	0.5	3.75	5.7
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	12	1.	3.5	19.	0.5	29.455	5.427	0.5	0.5	5.75	15.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.04	0.132	0.84	0.02	0.058	0.24	0.02	0.02	0.14	0.7
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.01	0.012	0.06	0.005	0.	0.016	0.005	0.005	0.01	0.05
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	1.1	1.2	1.75	0.69	0.097	0.312	0.728	0.97	1.43	1.7
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	0.3	0.455	1.3	0.2	0.123	0.35	0.2	0.2	0.5	1.22
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	11 ##	0.05	0.068	0.1	0.05	0.001	0.025	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	11	0.01	0.017	0.06	0.005	0.	0.017	0.005	0.01	0.03	0.054
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	11	3.2	3.364	4.3	2.4	0.413	0.642	2.48	2.9	4.	4.3
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	11	70.	72.818	98.	55.	167.964	12.96	56.	62.	83.	95.2
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	11	23.	21.182	24.	16.	9.564	3.093	16.4	18.	24.	24.
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	12	36.5	36.917	48.	26.	57.902	7.609	26.	30.75	43.5	48.
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	12 ##	0.075	0.083	0.16	0.025	0.002	0.047	0.025	0.05	0.128	0.151
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	11	700	1340.909	4400.	50.	1973409.091	1404.781	60.	200.	2700.	4060.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	11	2.845	2.814	3.643	1.699	0.4	0.632	1.759	2.301	3.431	3.601
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	651.212								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1991 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	11	17.2	15.236	23.6	4.2	48.835	6.988	4.32	7.1	21.3	23.2
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	11	5.	5.809	12.1	1.2	10.381	3.222	1.6	3.7	8.7	11.64
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	11	7.	8.391	12.9	4.9	9.473	3.078	4.96	5.7	12.	12.88
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	11	4.	5.091	13.	2.	15.691	3.961	2.	2.	7.	12.8
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	11	12.	13.455	24.	3.	31.073	5.574	4.	11.	18.	22.8
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	11	6.42	6.519	7.02	6.27	0.059	0.243	6.276	6.31	6.72	6.978
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	11	6.42	6.467	7.02	6.27	0.062	0.249	6.276	6.31	6.72	6.978

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1991 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	11	0.38	0.341	0.537	0.095	0.023	0.152	0.107	0.191	0.49	0.53
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	10	7.	7.06	7.4	6.7	0.054	0.232	6.71	6.875	7.3	7.39
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	10	7.	7.006	7.4	6.7	0.057	0.239	6.71	6.875	7.3	7.39
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	10	0.1	0.099	0.2	0.04	0.003	0.052	0.041	0.05	0.134	0.195
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	10	33.5	35.2	54.	26.	70.4	8.39	26.	29.75	38.75	53.
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	11	166.	172.818	216.	145.	522.964	22.868	146.4	153.	191.	212.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	11	35.	37.182	57.	22.	114.764	10.713	22.8	29.	48.	55.4
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	11	140.	135.636	159.	115.	232.455	15.246	115.	118.	148.	157.4
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	5.	4.591	7.	1.5	4.591	2.143	1.5	2.5	7.	7.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	2.	1.864	4.	1.	0.755	0.869	1.	1.	2.	3.7
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	11	3.	3.227	5.	1.5	1.818	1.348	1.5	2.	5.	5.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.83	1.117	2.9	0.11	0.654	0.809	0.16	0.48	1.65	2.662
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	0.04	0.085	0.22	0.005	0.006	0.08	0.006	0.01	0.16	0.21
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	11	1.06	0.966	1.57	0.02	0.207	0.455	0.098	0.77	1.16	1.57
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	11	1.5	1.636	3.8	0.4	0.857	0.925	0.44	1.2	2.1	3.48
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/06/94	11	0.1	0.132	0.4	0.05	0.011	0.103	0.05	0.05	0.2	0.36
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	11	0.07	0.067	0.14	0.01	0.002	0.041	0.01	0.04	0.1	0.134
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	11	3.8	3.973	5.8	2.6	1.198	1.095	2.68	3.1	5.2	5.72
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	11	82.	80.727	112.	62.	285.818	16.906	62.4	66.	96.	110.
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	11	24.	24.545	31.	18.	20.073	4.48	18.2	20.	30.	30.8
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	11	43.	42.182	61.	28.	98.364	9.918	29.	33.	49.	59.6
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	11	0.18	0.173	0.22	0.11	0.002	0.041	0.112	0.12	0.2	0.22
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	2700.	3572.727	8000.	300.	9572181.818	3093.894	360.	700.	6600.	8000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	3.431	3.334	3.903	2.477	0.259	0.509	2.537	2.845	3.82	3.903
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		2156.448							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1992 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	10	16.05	13.94	22.1	2.5	45.34	6.734	2.92	7.225	19.225	22.
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	10	4.1	4.53	8.9	1.8	4.187	2.046	1.85	3.275	5.875	8.62
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	1	213.	213.	213.	0.	0.		**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	2	9.95	9.95	11.1	8.8	2.645	1.626	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	10	1.	1.	2.	0.5	0.167	0.408	0.5	0.875	1.	1.9
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	10	9.5	9.1	16.	3.	20.989	4.581	3.	5.25	12.75	15.9
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	10	6.41	6.442	7.2	5.84	0.211	0.46	5.846	5.975	6.818	7.167
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	10	6.401	6.25	7.2	5.84	0.252	0.502	5.846	5.975	6.817	7.167
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	10	0.397	0.562	1.445	0.063	0.252	0.502	0.07	0.153	1.065	1.427
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	10	7.1	7.14	7.7	6.7	0.127	0.357	6.71	6.8	7.525	7.69
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	10	7.1	7.026	7.7	6.7	0.141	0.376	6.71	6.8	7.525	7.69
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	10	0.079	0.094	0.2	0.02	0.004	0.063	0.02	0.03	0.158	0.195
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	10	27.	26.8	36.	17.	25.067	5.007	17.7	24.	29.5	35.5
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	10	154.5	153.8	195.	126.	379.733	19.487	126.9	138.	163.5	192.3
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	10	28.5	29.9	39.	22.	47.878	6.919	22.1	23.	37.	38.8
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	10	123.	123.9	158.	101.	306.1	17.496	101.2	109.75	134.75	156.5
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	2.	2.9	9.	1.5	5.322	2.307	1.5	1.5	3.25	8.5
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	9	1.5	1.333	2.	1.	0.125	0.354	1.	1.	1.5	2.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	10	1.75	2.3	7.	1.	3.011	1.735	1.05	1.5	2.25	6.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.045	0.066	0.2	0.02	0.004	0.062	0.02	0.02	0.098	0.195
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.01	0.009	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.019
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	1.08	1.039	1.39	0.34	0.096	0.309	0.34	0.95	1.26	1.39
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	10	0.3	0.4	0.8	0.2	0.04	0.2	0.21	0.3	0.55	0.79
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	10	#	0.05	0.07	0.1	0.05	0.001	0.026	0.05	0.05	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	10	0.01	0.009	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.019
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	10	2.85	3.01	5.4	1.1	1.628	1.276	1.12	2.35	4.025	5.27

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1992 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	11	74.	75.636	102.	60.	140.455	11.851	60.8	69.	80.	99.4
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	10	18.	19.	23.	12.	12.222	3.496	12.5	17.	22.25	23
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	10	39.5	41.4	70.	31.	121.822	11.037	31.1	35.	43.	67.6
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	10##	0.13	0.125	0.25	0.05	0.006	0.078	0.05	0.05	0.175	0.25
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	10	100.	200.	900.	50.	63888.889	252.763	50.	87.5	200.	830
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	10	2.	2.126	2.954	1.699	0.134	0.366	1.699	1.925	2.301	2.889
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	133.514								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1993 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	9	14.6	13.867	23.1	4.1	46.29	6.804	4.1	6.8	19.95	23.1
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	8	2.9	5.5	23.	1.3	51.489	7.176	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	5	220.	212.6	257.	175.	1075.3	32.792	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	6	8.55	9.	12.4	7.8	2.932	1.712	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	9	1.	1.333	2.	1.	0.25	0.5	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	9	9.	11.	20.	5.	31.25	5.59	5.	6.	16.5	20.
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	9	6.61	6.649	6.92	6.36	0.034	0.184	6.36	6.525	6.83	6.92
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	9	6.61	6.615	6.92	6.36	0.035	0.188	6.36	6.525	6.83	6.92
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	9	0.245	0.242	0.437	0.12	0.01	0.099	0.12	0.15	0.299	0.437
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	9	7.2	7.267	8.1	6.5	0.313	0.559	6.5	6.8	7.8	8.1
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	9	7.2	7.003	8.1	6.5	0.391	0.625	6.5	6.8	7.8	8.1
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	9	0.063	0.099	0.316	0.008	0.01	0.102	0.008	0.016	0.158	0.316
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	9	28.	28.889	33.	26.	7.111	2.667	26.	26.5	31.5	33.
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	9	150.	151.	175.	122.	285.25	16.889	122.	140.	165.5	175.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	9	34.	31.667	43.	15.	100.	10.	15.	23.	40.	43.
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	9	125.	119.333	134.	79.	316.25	17.783	79.	111.5	133.	134.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	9	3.	5.444	18.	1.5	32.153	5.67	1.5	1.5	8.5	18.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	9	1.5	2.111	6.	1.	2.486	1.577	1.	1.25	2.5	6.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	9	2.	4.	12.	1.5	15.375	3.921	1.5	1.5	7.	12.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	9	0.09	0.241	1.34	0.04	0.175	0.418	0.04	0.055	0.2	1.34
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.01	0.058	0.39	0.005	0.014	0.119	0.005	0.009	0.045	0.36
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	10	0.97	1.029	1.57	0.14	0.166	0.407	0.202	0.873	1.348	1.553
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	10	0.4	0.59	1.9	0.3	0.243	0.493	0.3	0.3	0.6	1.8
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	10##	0.05	0.075	0.2	0.05	0.002	0.049	0.05	0.05	0.1	0.19
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	10	0.015	0.024	0.09	0.01	0.001	0.025	0.01	0.01	0.025	0.085
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	9	3.7	4.322	9.8	2.2	5.542	2.354	2.2	2.55	5.35	9.8
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	9	75.	72.333	94.	56.	129.	11.358	56.	62.	76.	94.
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	9	20.	23.222	59.	13.	199.194	14.114	13.	14.	24.5	59.
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	8	37.	37.	51.	24.	89.429	9.457	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-05/26/93	3	0.1	0.133	0.25	0.05	0.011	0.104	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	200.	940.909	8000.	50.	5508909.091	2347.107	50.	50.	400.	6500.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	11	2.301	2.373	3.903	1.699	0.412	0.642	1.699	1.699	2.602	3.662
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	236.256								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	6	14.4	12.883	20.3	4.6	44.086	6.64	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-05/05/94	4	59.	127.425	390.	1.7	31404.789	177.214	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	1	200.	200.	200.	0.	0.	0.	**	**	**	**

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### Annual Analysis for 1994 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	4	12.2	11.575	12.3	9.6	1.736	1.318	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	6	1.45	1.733	4.	0.5	1.567	1.252	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	5	11.	17.4	49.	4.	328.3	18.119	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	7	6.57	6.177	6.89	4.2	0.878	0.937	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	7	6.57	5.026	6.89	4.2	2.424	1.557	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	7	0.269	9.413	63.096	0.129	560.633	23.678	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	6	6.45	6.1	6.7	4.2	0.896	0.947	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	6	6.447	4.966	6.7	4.2	2.439	1.562	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	6	0.357	10.815	63.096	0.2	656.002	25.613	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	6	19.	31.5	121.	0.	2001.1	44.734	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	6	218.5	326.167	886.	161.	78173.367	279.595	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	6	46.	53.5	100.	37.	559.1	23.645	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	6	175.5	272.667	786.	117.	65801.467	256.518	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	6	28.	138.	705.	3.	77807.2	278.939	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	6	5.5	15.	62.	1.5	555.9	23.578	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	6	20.	123.	643.	1.5	65339.1	255.615	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	6	0.175	0.44	1.88	0.02	0.508	0.713	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	6	0.03	0.048	0.13	0.005	0.003	0.051	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	6	1.175	1.125	1.71	0.59	0.168	0.41	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	6	0.55	1.05	2.6	0.3	0.995	0.997	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	6	0.05	0.155	0.7	0.01	0.072	0.269	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	4	0.055	0.085	0.21	0.02	0.007	0.085	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	5	5.6	6.98	12.8	2.4	23.222	4.819	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	5	76.	79.8	112.	63.	358.2	18.926	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	6	22.5	21.333	26.	12.	25.467	5.046	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	6	64.	75.833	144.	49.	1237.767	35.182	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	4	1200.	1762.5	4600.	50.	4538958.333	2130.483	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	4	2.822	2.751	3.663	1.699	0.83	0.911	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	564.021								

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### Annual Analysis for 1995 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	3	17.6	18.167	22.4	14.5	15.843	3.98	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	2	227.5	227.5	243.	212.	480.5	21.92	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	4	1.8	2.425	5.	1.1	3.083	1.756	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	4	13.5	14.25	20.	10.	21.583	4.646	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	3	6.74	6.72	6.85	6.57	0.02	0.141	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	3	6.74	6.705	6.85	6.57	0.02	0.142	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	3	0.182	0.197	0.269	0.141	0.004	0.065	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	4	6.85	6.85	7.	6.7	0.017	0.129	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	4	6.847	6.836	7.	6.7	0.017	0.13	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	4	0.142	0.146	0.2	0.1	0.002	0.043	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	4	33.	32.75	42.	23.	70.917	8.421	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	4	143.	150.75	186.	131.	616.917	24.838	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	4	33.5	29.75	36.	16.	86.917	9.323	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	4	116.5	121.	151.	100.	462.	21.494	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	4	3.	3.5	5.	3.	1.	1.	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	4##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	4##	1.5	1.875	3.	1.5	0.563	0.75	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	4	0.41	0.765	2.2	0.04	1.032	1.016	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	4	0.015	0.064	0.22	0.005	0.011	0.104	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	4	1.225	1.195	1.29	1.04	0.012	0.108	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	4	0.65	1.125	2.9	0.3	1.509	1.228	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	4	0.06	0.065	0.1	0.04	0.001	0.025	**	**	**	**

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### Annual Analysis for 1995 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	4	5.45	5.375	6.9	3.7	2.449	1.565	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	04/22/85-12/07/98	4	64.	68.75	88.	59.	180.917	13.451	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	4	20.5	21.25	26.	18.	11.583	3.403	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	02/21/89-12/07/98	4	35.	38.	53.	29.	110.667	10.52	**	**	**	**

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### Annual Analysis for 1996 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	4	14.9	15.475	23.6	8.5	42.283	6.502	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	4	281.	273.	324.	206.	2406.	49.051	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	4	1.5	2.125	5.	0.5	4.063	2.016	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	4	12.5	15.	24.	11.	36.667	6.055	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	4	6.71	6.678	6.78	6.51	0.014	0.116	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	4	6.71	6.665	6.78	6.51	0.014	0.117	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	4	0.195	0.216	0.309	0.166	0.004	0.063	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	4	7.1	7.125	7.4	6.9	0.049	0.222	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	4	7.089	7.085	7.4	6.9	0.051	0.226	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	4	0.082	0.082	0.126	0.04	0.001	0.038	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/03/69-12/07/98	4	29.	27.25	30.	21.	17.583	4.193	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	4	166.5	169.25	182.	162.	90.25	9.5	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	4	40.5	37.25	43.	25.	69.583	8.342	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	4	132.5	132.	140.	123.	62.	7.874	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	4	7.5	12.125	32.	1.5	183.729	13.555	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	4##	2.25	3.	6.	1.5	4.5	2.121	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	4	5.	9.375	26.	1.5	125.563	11.205	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	4	0.09	0.273	0.87	0.04	0.16	0.4	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	4	0.025	0.021	0.03	0.005	0.	0.012	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	4	1.13	0.987	1.27	0.42	0.151	0.388	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	4	0.45	0.8	2.	0.3	0.647	0.804	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	4	0.06	0.07	0.13	0.03	0.002	0.043	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	2	4.2	4.2	5.5	2.9	3.38	1.838	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	04/22/85-12/07/98	4	74.	74.5	84.	66.	78.333	8.851	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	4	26.	23.5	33.	9.	121.	11.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	02/21/89-12/07/98	4	46.5	45.5	55.	34.	83.	9.11	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	5	13.6	13.82	20.7	7.	36.997	6.083	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	5	254.	270.2	334.	236.	1464.2	38.265	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	5##	1.	0.9	1.	0.5	0.05	0.224	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/07/98	5	14.	13.4	19.	9.	16.3	4.037	**	**	**	**
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	5	6.92	6.874	7.01	6.69	0.016	0.125	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	5	6.92	6.859	7.01	6.69	0.016	0.127	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	5	0.12	0.138	0.204	0.098	0.002	0.042	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	5	6.8	6.88	7.2	6.6	0.092	0.303	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	5	6.8	6.803	7.2	6.6	0.099	0.315	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	5	0.158	0.157	0.251	0.063	0.009	0.094	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/03/69-12/07/98	5	34.	31.2	37.	21.	49.2	7.014	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	5	167.	165.	183.	127.	515.5	22.705	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	5	39.	39.2	47.	28.	52.7	7.259	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00510 RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	5	129.	125.8	139.	99.	247.2	15.723	**	**	**	**
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	5	4.	4.1	6.	1.5	2.8	1.673	**	**	**	**
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	5 ##	1.5	1.5	1.5	0.	0.	**	**	**	**	**
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	5 ##	1.5	2.3	4.	1.5	1.325	1.151	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	5	0.06	0.052	0.08	0.02	0.001	0.03	**	**	**	**
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	5 ##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	5	1.1	1.016	1.32	0.62	0.082	0.287	**	**	**	**
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	5	0.3	0.38	0.6	0.3	0.017	0.13	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	5	0.03	0.026	0.04	0.01	0.	0.011	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	5	75.	80.2	112.	66.	337.2	18.363	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	5	20.	19.2	22.	15.	9.7	3.114	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	5	40.	46.8	69.	35.	203.2	14.255	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

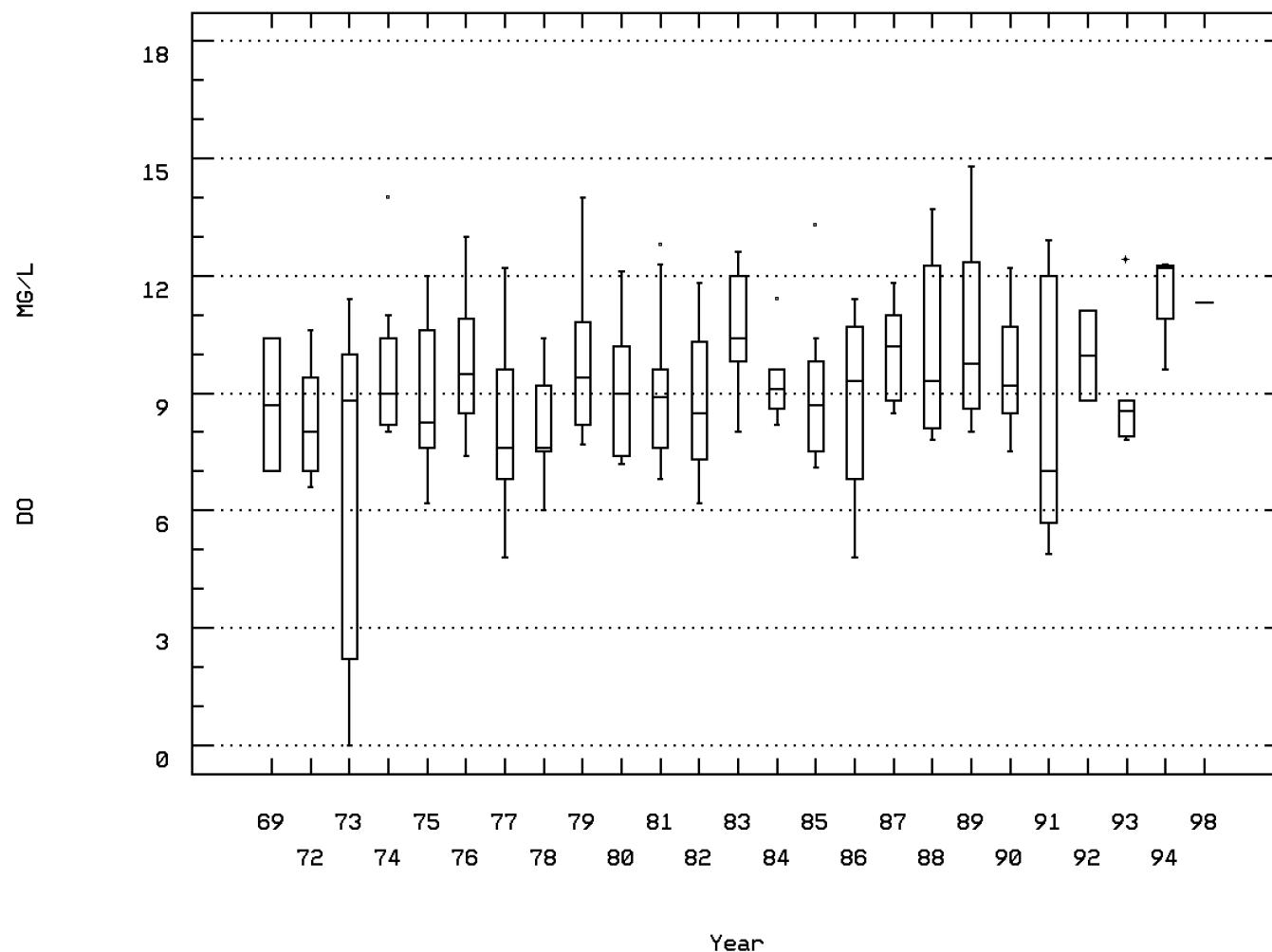
### Annual Analysis for 1998 - Station RICH0094

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	6	15.7	16.467	23.5	11.1	16.711	4.088	**	**	**	**
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	6	215.5	217.5	231.	210.	52.3	7.232	**	**	**	**
00300p OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	1	11.3	11.3	11.3	0.	0.	0.	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	6 ##	1.	1.333	2.	1.	0.267	0.516	**	**	**	**
00340 COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	6	7.5	6.667	10.	2.5	11.767	3.43	**	**	**	**
00400p PH (STANDARD UNITS)	02/03/69-12/07/98	6	6.745	6.77	6.92	6.68	0.007	0.083	**	**	**	**
00400p CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	6	6.745	6.764	6.92	6.68	0.007	0.083	**	**	**	**
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	6	0.18	0.172	0.209	0.12	0.001	0.03	**	**	**	**
00403 PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	6	6.55	6.55	6.7	6.4	0.019	0.138	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	6	6.547	6.532	6.7	6.4	0.019	0.139	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	6	0.284	0.294	0.398	0.2	0.008	0.091	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	6	29.	28.167	36.	18.	39.767	6.306	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	6	155.	148.667	165.	122.	285.467	16.896	**	**	**	**
00505 RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	6	40.	36.333	45.	22.	69.867	8.359	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	6	114.	112.333	125.	91.	143.067	11.961	**	**	**	**
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	6 ##	2.25	6.583	26.	1.5	93.542	9.672	**	**	**	**
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	6 ##	1.5	2.583	8.	1.5	7.042	2.654	**	**	**	**
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	6 ##	1.5	4.667	18.	1.5	43.667	6.608	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	6 ##	0.02	0.028	0.07	0.02	0.	0.02	**	**	**	**
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	6 ##	0.005	0.008	0.02	0.	0.	0.006	**	**	**	**
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	6	1.415	1.305	1.9	0.56	0.204	0.451	**	**	**	**
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	6	0.4	0.4	0.6	0.2	0.02	0.141	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	6	0.02	0.025	0.05	0.01	0.	0.014	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	6	58.5	61.5	81.	48.	124.3	11.149	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	6	21.5	20.167	26.	9.	35.767	5.981	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	6	27.	33.5	63.	21.	260.3	16.134	**	**	**	**

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Station: RICH0094 Parameter Code: 00300

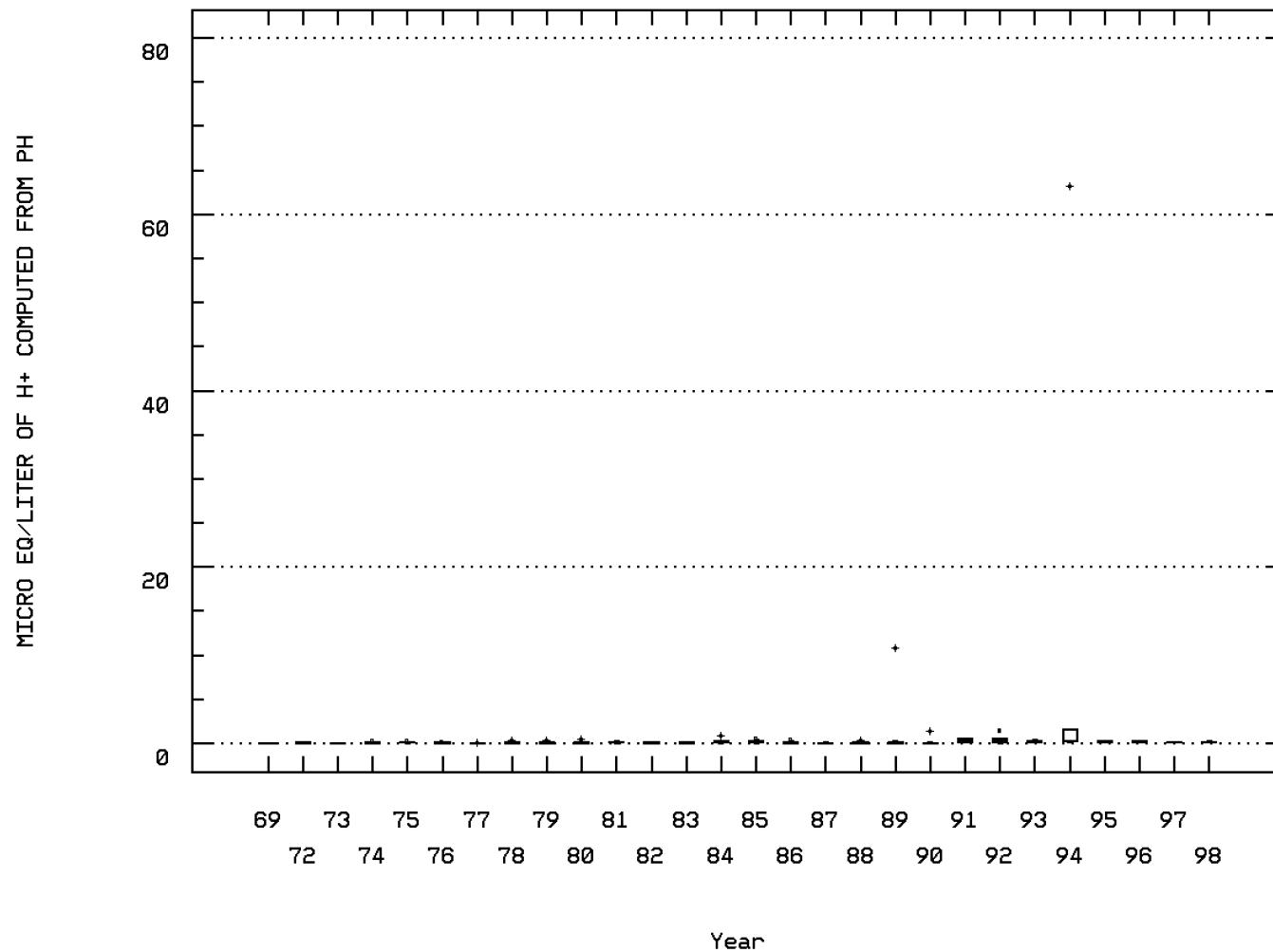
OXYGEN, DISSOLVED



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00400

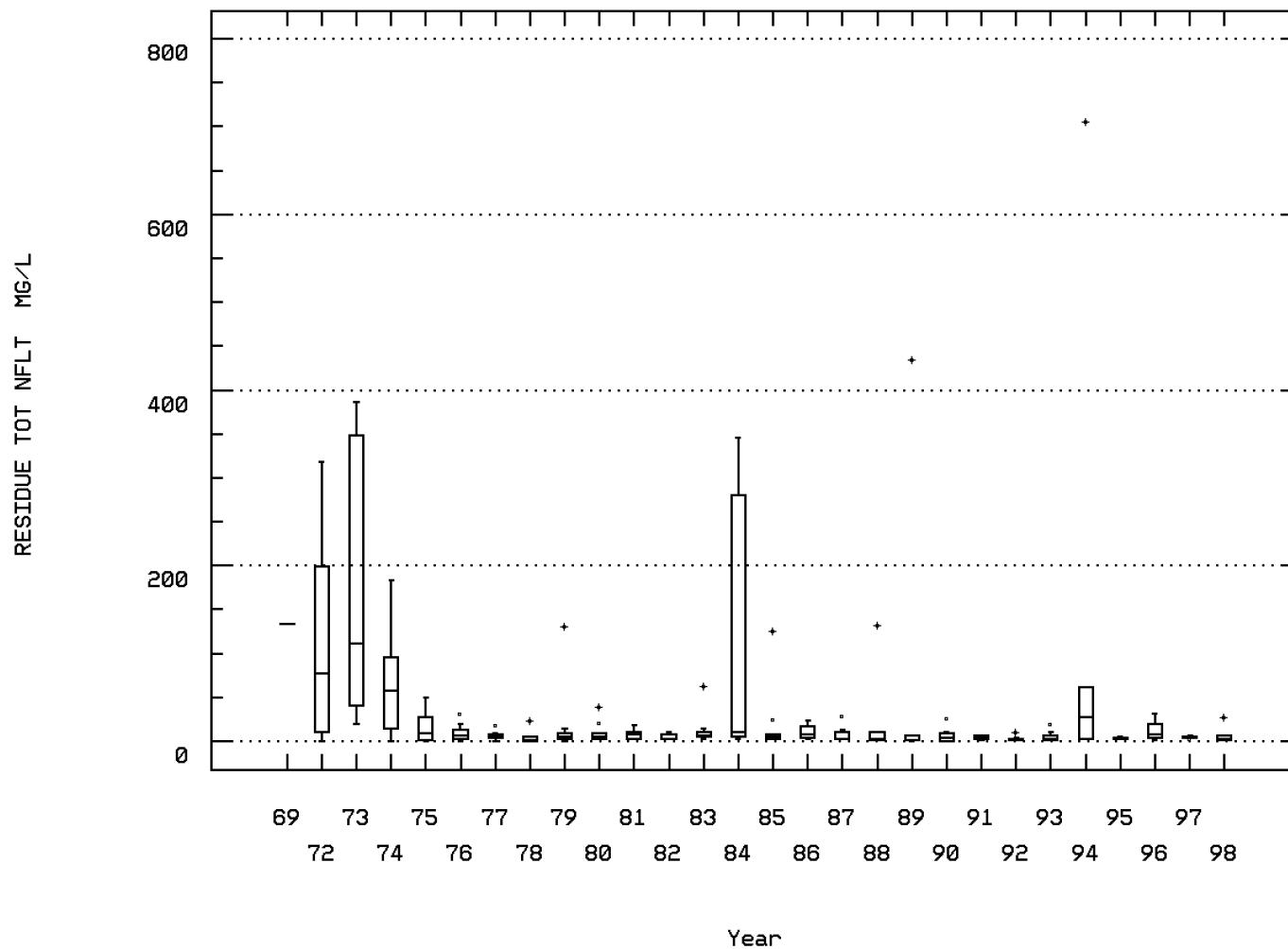
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00530

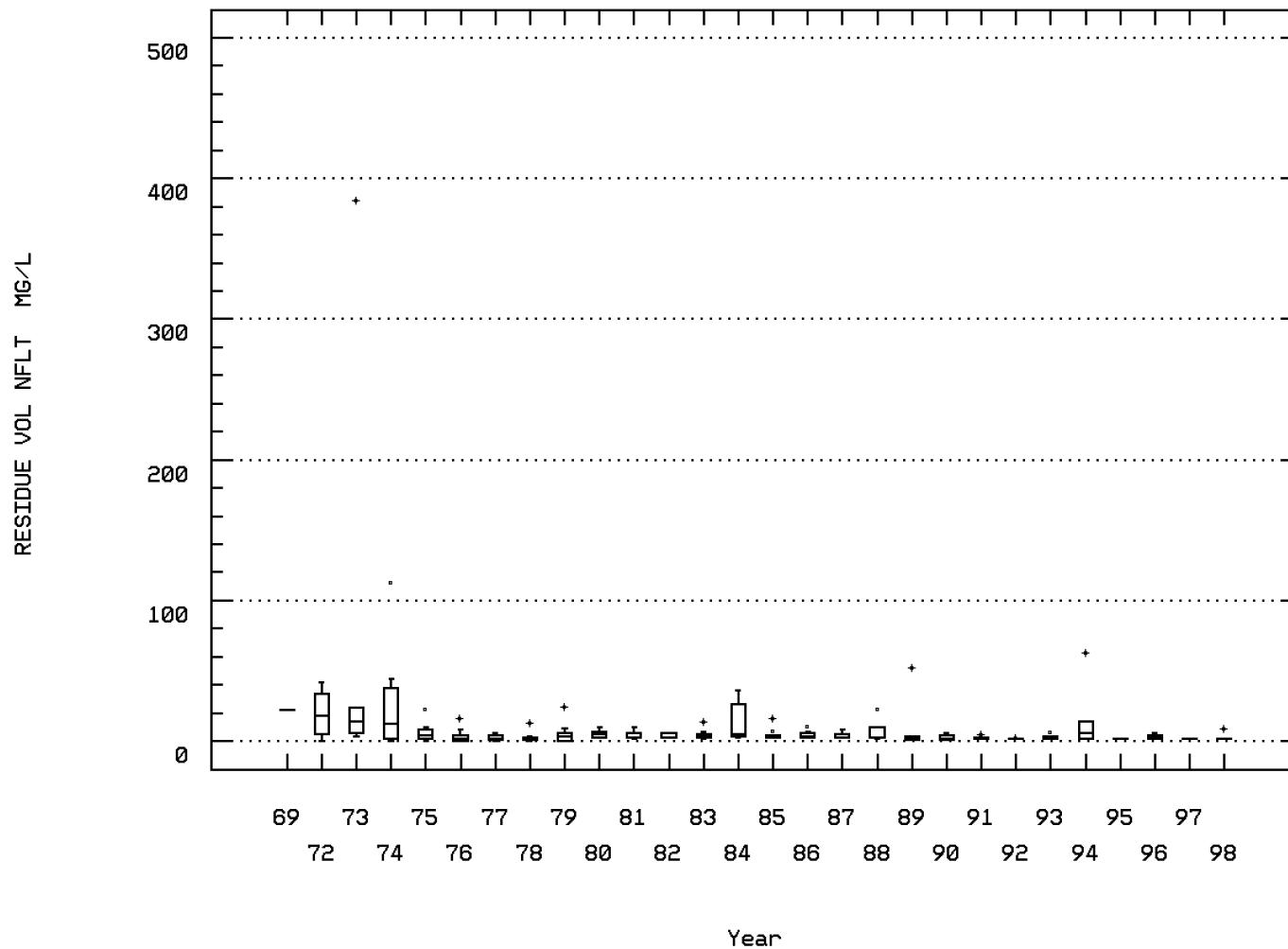
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00535

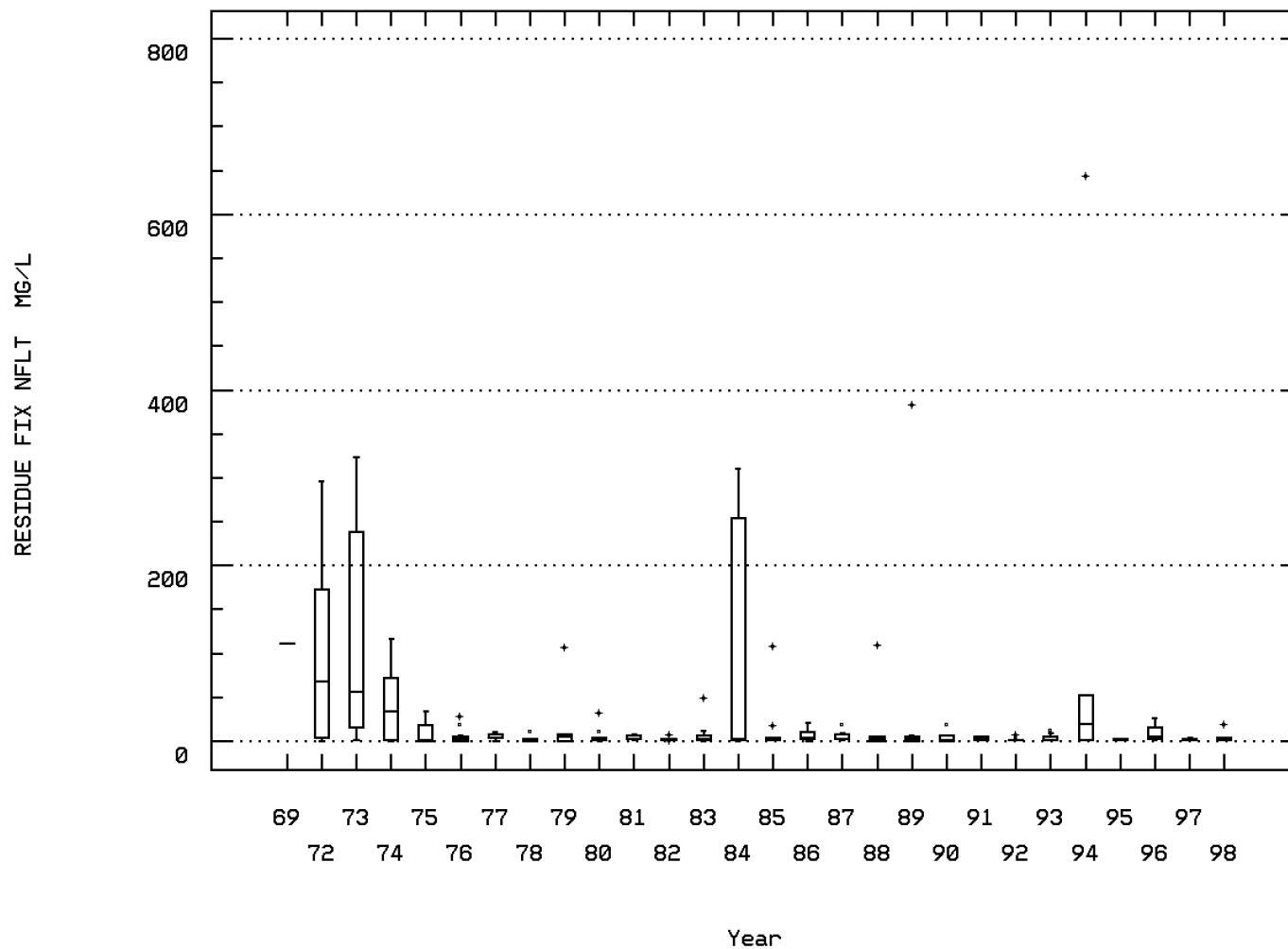
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00540

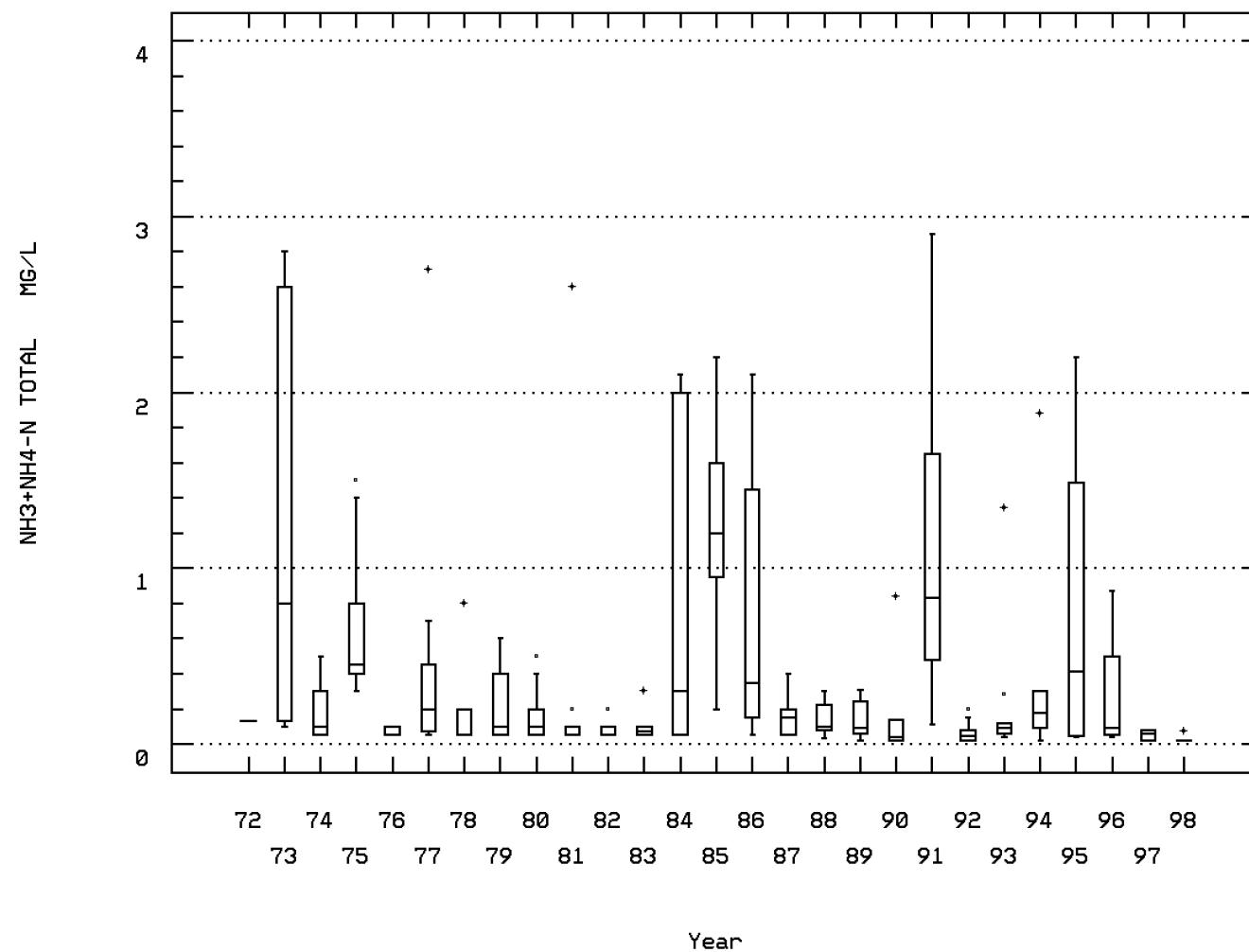
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00610

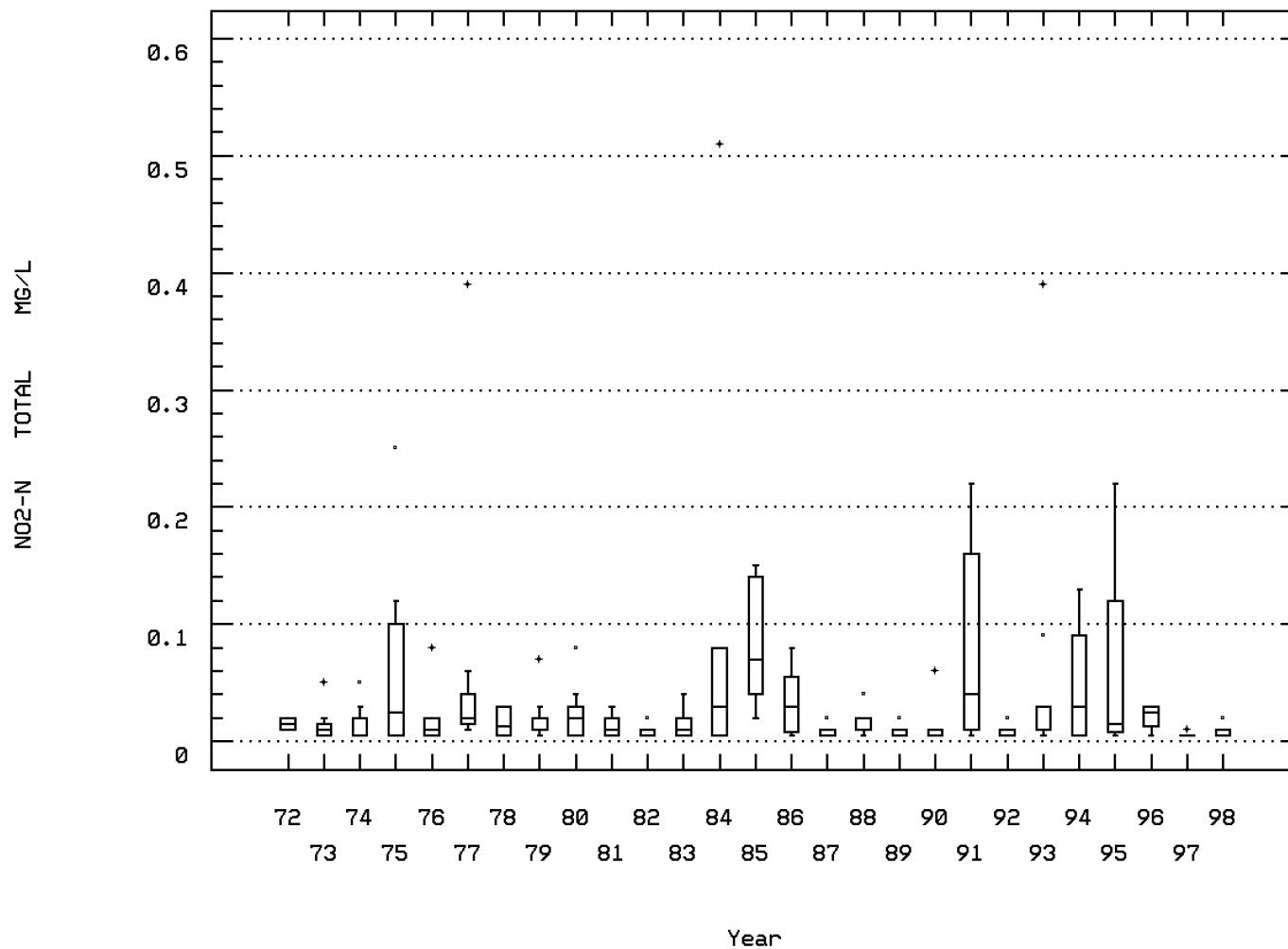
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00615

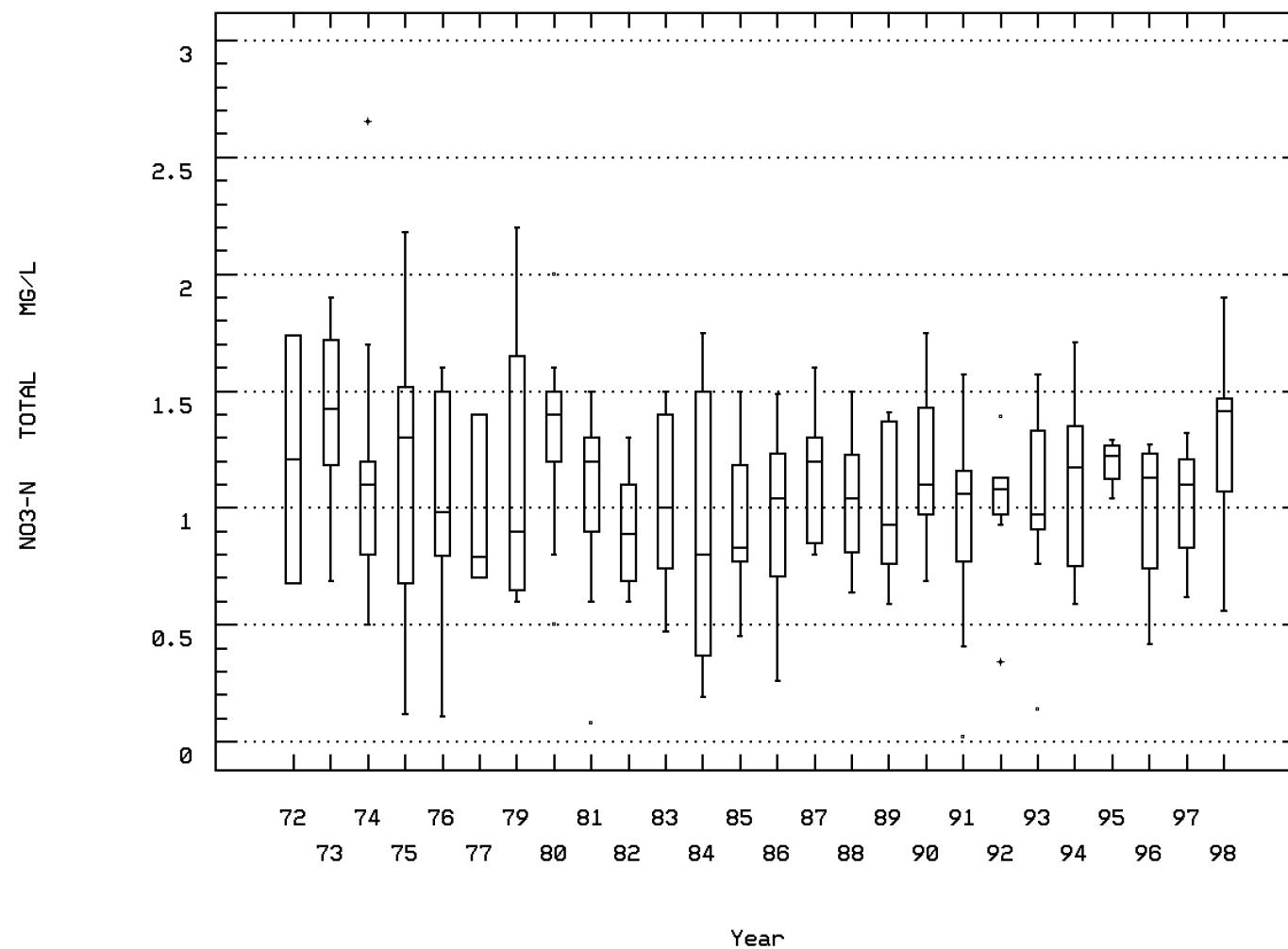
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00620

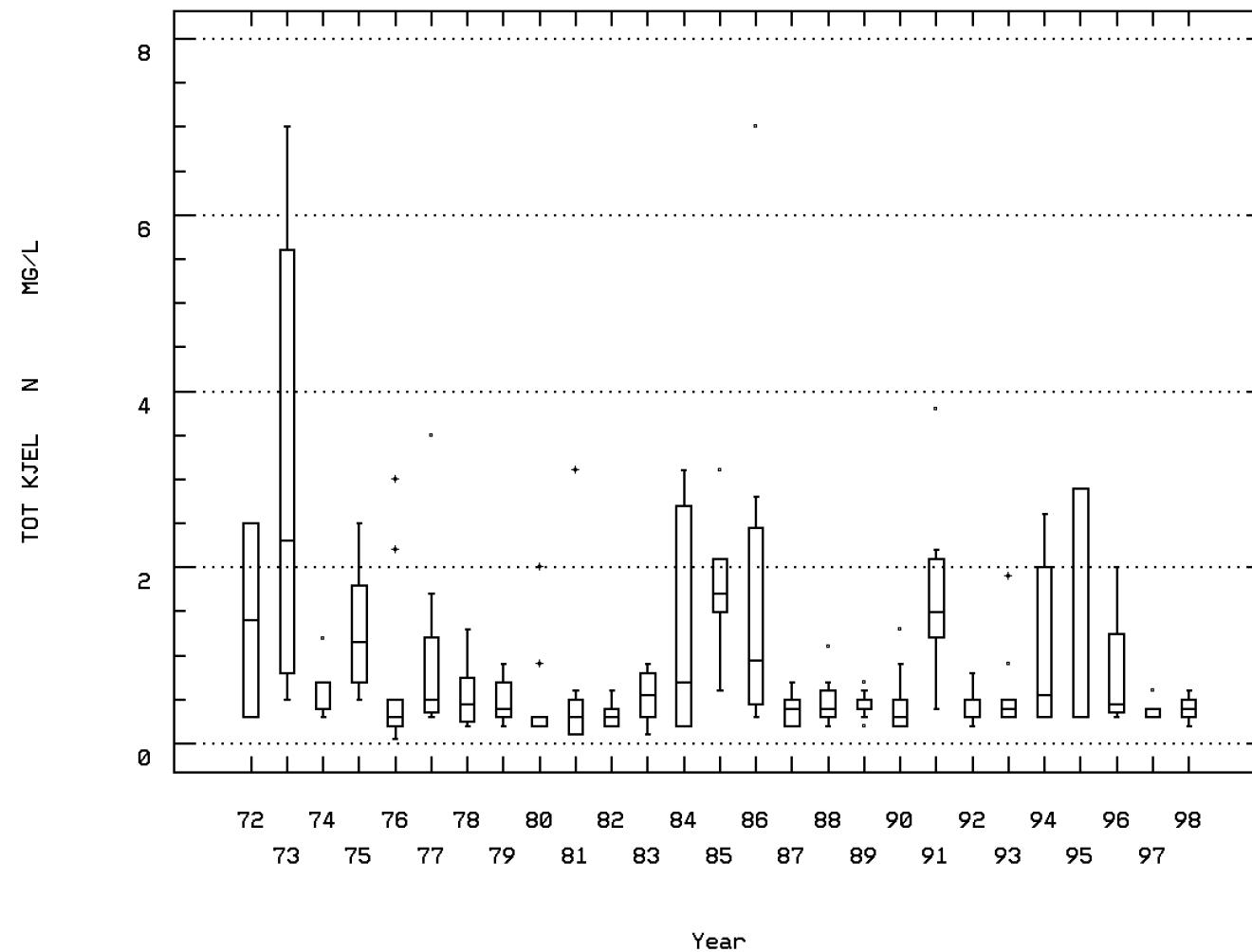
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00625

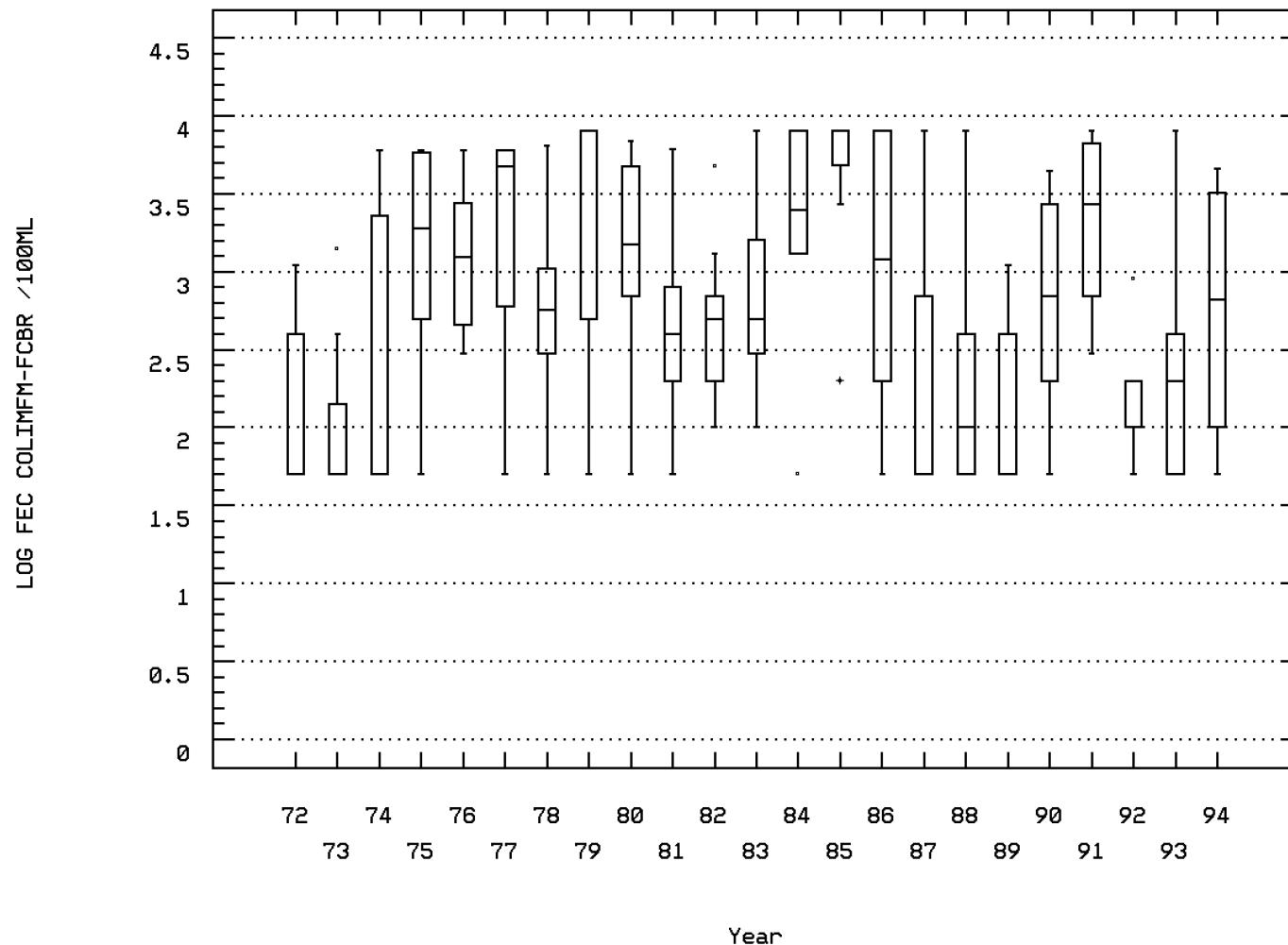
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 31616

LOG FECAL COLIFORM, MEMBR FILTER, M-FC BR



RT. 5 BRIDGE

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	62	22.	20.789	29.	2.2	21.491	4.636	15.58	18.5	23.525	25.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	33	265.	267.97	476.	176.	3986.718	63.14	203.4	220.5	287.5	348.8
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-12/07/98	16	239.	240.625	291.	183.	664.25	25.773	205.4	227.	261.75	276.3
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	02/10/92-12/07/98	9	8.	8.156	9.8	6.5	1.348	1.161	6.5	7.25	9.4	9.8
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	53	7.9	7.696	9.9	1.	1.974	1.405	6.2	7.25	8.6	8.96
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	46	1.	1.809	7.	0.5	2.379	1.542	0.5	1.	2.	3.3
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	45	12.	12.089	25.	2.5	35.571	5.964	4.2	8.	15.	22.4
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	62	7.095	7.284	10.5	6.27	0.787	0.887	6.5	6.755	7.455	8.017
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	62	7.095	6.912	10.5	6.27	0.928	0.963	6.5	6.755	7.455	8.017
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	62	0.08	0.122	0.537	0.	0.016	0.125	0.01	0.035	0.176	0.316
00403p	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	34	7.	7.324	12.3	6.2	1.598	1.264	6.55	6.8	7.225	8.5
00403p	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	34	7.	6.899	12.3	6.2	1.783	1.335	6.55	6.8	7.225	8.5
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	34	0.1	0.126	0.631	0.	0.014	0.118	0.016	0.06	0.158	0.284
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	34	33.5	88.559	1695.	8.	82250.739	286.794	22.5	27.25	38.25	56.
00500p	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	34	178.5	254.882	2067.	31.	113497.986	336.895	134.5	153.5	214.	329.5
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	34	38.5	50.735	148.	20.	1211.655	34.809	22.	28.5	54.5	129.
00510p	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	33	133.	208.667	2036.	4.	118505.979	344.247	79.	115.5	175.	226.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	60	3.	20.325	318.	0.	2643.795	51.418	1.	2.	9.	49.1
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	59	2.	6.288	112.	0.	259.881	16.121	0.5	1.	3.	16.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	59	2.5	15.212	296.	0.	1876.459	43.318	0.	1.	7.	28.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	61	0.06	0.305	2.	0.02	0.246	0.496	0.02	0.05	0.3	1.293
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	61 ##	0.005	0.047	0.51	0.005	0.009	0.096	0.005	0.005	0.025	0.158
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	57	1.06	1.127	2.	0.5	0.126	0.355	0.688	0.83	1.4	1.62
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	61	0.4	0.667	4.299	0.1	0.591	0.769	0.2	0.25	0.65	1.98
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	45	0.1	0.128	1.	0.02	0.027	0.164	0.03	0.05	0.1	0.24
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	39	0.02	0.055	0.46	0.005	0.009	0.097	0.01	0.01	0.04	0.14
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	41	4.3	5.229	18.	1.1	9.339	3.056	2.52	3.1	7.	8.8
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	19	74.	73.737	102.	48.	163.871	12.801	59.	66.	80.	92.
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	17	22.	22.	31.	16.	16.625	4.077	16.	18.	25.	27.
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	17	37.	38.471	55.	21.	99.515	9.976	25.	33.	48.	54.2
01002	ARSENIC, TOTAL (UG/L AS AS)	05/06/72-04/28/93	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/06/72-04/28/93	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/06/72-04/28/93	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	05/06/72-04/28/93	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	05/06/72-04/28/93	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/06/72-04/28/93	2	28.	28.	30.	26.	8.	2.828	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	56	600.	1975.	8000.	50.	6804363.636	2608.518	50.	225.	2650.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/72-06/06/94	56	2.778	2.824	3.903	1.699	0.532	0.73	1.699	2.345	3.423	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			666.447								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	16 ##	0.05	0.062	0.1	0.05	0.001	0.022	0.05	0.05	0.088	0.1
70507p	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	11/27/72-12/07/98	22	0.025	0.035	0.1	0.005	0.001	0.027	0.005	0.01	0.05	0.07
71900	MERCURY, TOTAL (UG/L AS HG)	05/06/72-04/28/93	2 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	99	8.9	9.148	21.	0.1	18.633	4.317	4.2	6.	12.2	15.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	52	257.	245.865	409.	19.	3822.511	61.826	169.4	213.	276.	303.8
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-12/07/98	26	246.5	256.654	416.	187.	1927.595	43.904	208.4	235.75	278.	297.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	02/10/92-12/07/98	11	11.2	11.327	13.5	9.6	1.312	1.146	9.64	10.4	11.8	13.32
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	90	10.6	10.462	14.8	0.	5.211	2.283	7.73	9.4	12.	12.8
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	73	2.	4.596	90.	0.5	116.873	10.811	1.	1.	5.	7.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	72	13.	17.396	124.	0.5	301.098	17.352	7.	10.	20.	26.7
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	96	7.	7.28	11.	4.97	1.038	1.019	6.5	6.72	7.5	8.664
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	96	7.	6.587	11.	4.97	1.523	1.234	6.5	6.72	7.5	8.664

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	96	0.1	0.259	10.715	0.	1.214	1.102	0.003	0.032	0.191	0.316
00403p	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	63	6.9	7.232	12.2	5.	1.814	1.347	6.4	6.6	7.3	8.02
00403p	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	63	6.9	6.46	12.2	5.	2.42	1.555	6.4	6.6	7.3	8.02
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	63	0.126	0.347	10.	0.	1.632	1.277	0.01	0.05	0.251	0.398
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	63	31.	90.413	1320.	3.	55501.375	235.587	21.	27.	44.	100.6
00500p	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	57	165.	257.018	1961.	113.	97385.41	312.066	130.2	148.	191.	625.2
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	59	35.	52.78	408.	0.	4682.209	68.427	22.	29.	49.	76.
00510p	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	59	128.	263.254	2410.	10.	175815.365	419.303	82.	101.	152.	671.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	99	5.	39.396	705.	0.	10959.948	104.69	1.5	2.5	14.	130.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	98	2.5	10.077	384.	0.	1558.935	39.483	0.5	1.5	7.25	18.4
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	99	2.5	29.946	643.	0.	8017.117	89.538	0.5	1.5	7.	93.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	97	0.13	0.415	2.799	0.02	0.402	0.634	0.05	0.05	0.4	1.419
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	96	0.01	0.018	0.1	0.005	0.	0.02	0.005	0.005	0.02	0.043
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	92	1.09	1.062	2.649	0.08	0.188	0.434	0.569	0.78	1.387	1.5.
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	96	0.5	0.896	7.	0.05	1.199	1.095	0.2	0.3	1.074	2.26
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	72	0.05	0.106	1.	0.01	0.021	0.144	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	65	0.02	0.059	0.89	0.005	0.015	0.121	0.01	0.01	0.06	0.164
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	62	5.5	8.002	77.	1.	114.771	10.713	2.26	3.2	8.25	13.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	31	81.	82.839	148.	55.	348.206	18.66	63.2	74.	88.	112.
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	31	21.	22.258	59.	9.	90.865	9.532	12.2	18.	24.	34.
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	29	46.	53.379	164.	22.	663.672	25.762	32.	39.	60.	79.
01002	ARSENIC, TOTAL (UG/L AS AS)	05/06/72-04/28/93	7 ##	5.	4.	6.	1.	4.333	2.082	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/06/72-04/28/93	7 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/06/72-04/28/93	10 ##	5.	5.5	10.	5.	2.5	1.581	5.	5.	5.	9.5
01042	COPPER, TOTAL (UG/L AS CU)	05/06/72-04/28/93	10 ##	5.	6.8	13.	5.	9.067	3.011	5.	5.	10.	12.7
01051	LEAD, TOTAL (UG/L AS PB)	05/06/72-04/28/93	10 ##	5.	5.2	15.	1.	13.956	3.736	1.1	3.5	5.	14.
01092	ZINC, TOTAL (UG/L AS ZN)	05/06/72-04/28/93	10	30.	28.6	58.	5.	279.822	16.728	5.	16.25	35.	57.2
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	05/06/72-06/06/94	89	400.	2252.809	8000.	50.	9097918.156	3016.276	50.	50.	5150.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	89	2.602	2.705	3.903	1.699	0.745	0.863	1.699	1.699	3.71	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	507.273								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	24 ##	0.05	0.227	3.6	0.05	0.52	0.721	0.05	0.05	0.1	0.25
70507p	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-12/07/98	31	0.05	0.057	0.32	0.005	0.004	0.066	0.005	0.01	0.09	0.108
71900	MERCURY, TOTAL (UG/L AS HG)	05/06/72-04/28/93	10 ##	0.25	0.215	0.3	0.15	0.003	0.058	0.15	0.15	0.25	0.295

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/03/69-12/07/98	85	17.1	16.832	26.	2.2	18.66	4.32	11.42	14.35	20.	22.44
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/07/98	43	243.	241.953	324.	101.	1858.712	43.113	188.	215.	274.	297.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-12/07/98	21	235.	252.381	366.	198.	1762.848	41.986	219.	224.5	275.	332.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	02/10/92-12/07/98	13	8.8	9.077	11.6	7.1	1.604	1.266	7.3	8.05	9.95	11.16
00300p	OXYGEN, DISSOLVED MG/L	02/03/69-12/07/98	73	8.8	8.827	12.5	4.8	2.448	1.564	6.88	8.	9.6	11.06
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/03/69-12/07/98	58	2.	2.898	13.	0.5	8.894	2.982	1.	1.	3.	8.2
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/07/98	55	12.	16.6	204.	1.	725.096	26.928	5.	7.	19.	21.8
00400p	PH (STANDARD UNITS)	02/03/69-12/07/98	83	7.	7.21	12.	4.2	1.127	1.062	6.304	6.61	7.5	8.116
00400p	CONVERTED PH (STANDARD UNITS)	02/03/69-12/07/98	83	7.	6.027	12.	4.2	2.543	1.595	6.304	6.61	7.5	8.116
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	83	0.1	0.939	63.096	0.	47.759	6.911	0.008	0.032	0.245	0.497
00403p	PH, LAB, STANDARD UNITS SU	02/03/69-12/07/98	51	6.9	7.057	11.8	4.2	1.11	1.053	6.4	6.7	7.2	7.48
00403p	CONVERTED PH, LAB, STANDARD UNITS	02/03/69-12/07/98	51	6.9	5.859	11.8	4.2	2.573	1.604	6.4	6.7	7.2	7.48
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/03/69-12/07/98	51	0.126	1.383	63.096	0.	77.707	8.815	0.033	0.063	0.2	0.398
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	02/03/69-12/07/98	51	29.	40.196	295.	0.	2353.841	48.516	16.2	24.	36.	66.
00500p	RESIDUE, TOTAL (MG/L)	02/03/69-12/07/98	54	160.	178.204	426.	122.	3941.222	62.779	130.	142.5	182.25	284.5
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	02/03/69-12/07/98	54	38.	44.074	113.	6.	544.825	23.341	22.5	31.5	49.75	86.5
00510p	RESIDUE, TOTAL FIXED (MG/L)	02/03/69-12/07/98	54	124.	134.13	393.	46.	3991.7	63.18	79.	101.	140.5	213.5
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/24/69-12/07/98	81	6.	15.537	346.	0.	1667.567	40.836	1.6	2.5	10.5	38.

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

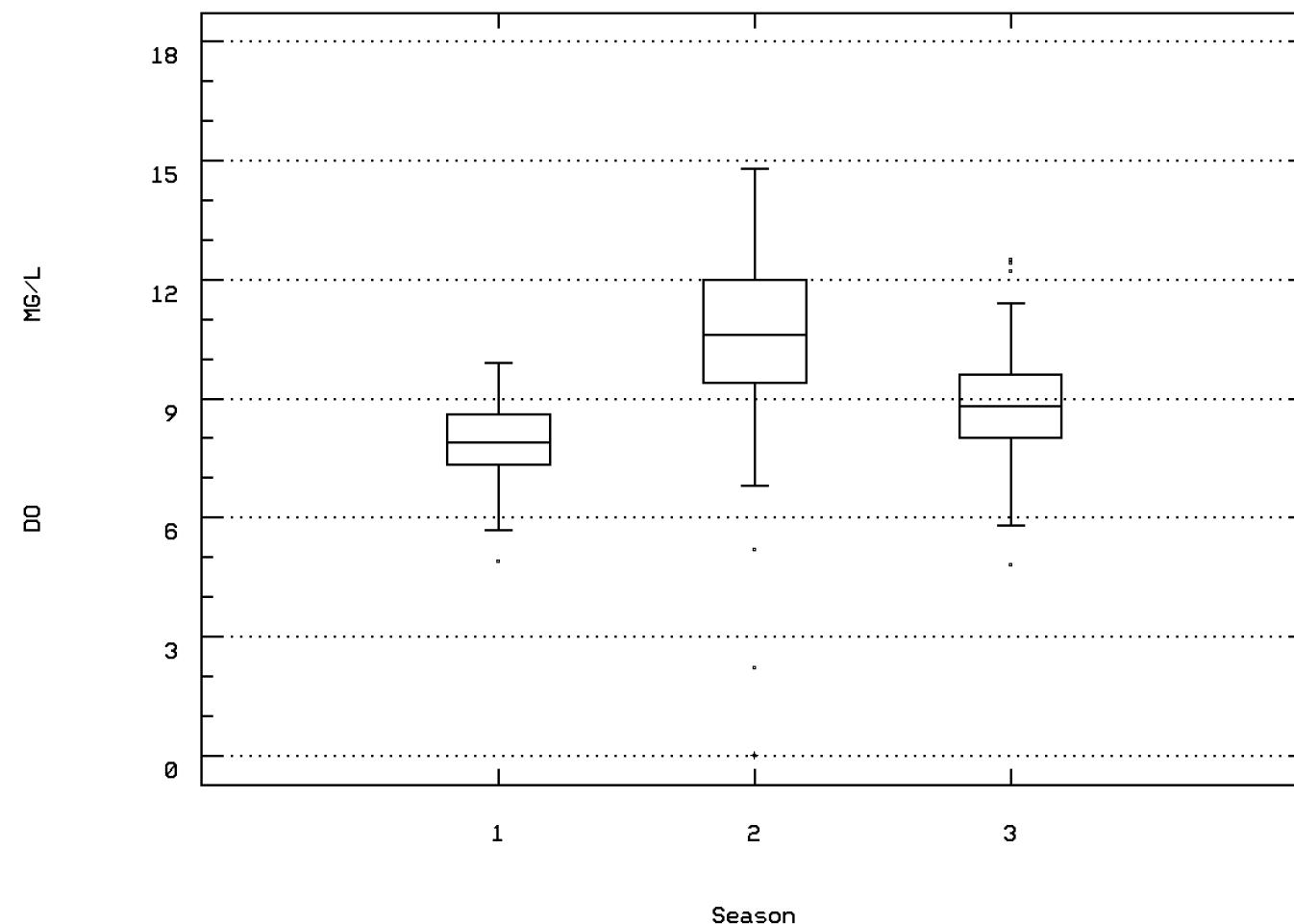
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/24/69-12/07/98	80	3.	4.556	36.	0.	29.114	5.396	1.	1.5	5.75	11.6
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/24/69-12/07/98	81	2.5	11.506	310.	0.	1318.328	36.309	0.5	1.5	6.	30.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-12/07/98	78	0.1	0.392	2.9	0.02	0.382	0.618	0.04	0.05	0.4	1.41
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	79	0.02	0.034	0.39	0.005	0.003	0.054	0.005	0.005	0.03	0.08
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-12/07/98	70	1.09	1.067	2.179	0.02	0.17	0.412	0.473	0.798	1.308	1.563
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-12/07/98	76	0.5	0.883	7.	0.1	1.117	1.057	0.2	0.3	0.9	2.15
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/07/98	53 ##	0.05	0.113	1.	0.01	0.031	0.176	0.044	0.05	0.1	0.268
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/06/94	48	0.02	0.183	5.	0.005	0.532	0.73	0.01	0.01	0.07	0.266
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/08/78-06/24/96	51	5.	5.543	20.	1.	10.587	3.254	2.44	3.6	6.	9.96
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/22/85-12/07/98	28	68.	68.143	102.	21.	223.757	14.958	56.	60.	74.	90.6
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/75-12/07/98	30	21.	21.167	33.	12.	24.075	4.907	15.	18.	24.	29.5
00945	SULFATE, TOTAL (MG/L AS SO4)	02/21/89-12/07/98	29	36.	43.586	144.	24.	508.466	22.549	26.	32.	51.5	61.
01002	ARSENIC, TOTAL (UG/L AS AS)	05/06/72-04/28/93	9 ##	1.	2.5	5.	1.	3.75	1.936	1.	1.	5.	5.
01027	CADMIUM, TOTAL (UG/L AS CD)	05/06/72-04/28/93	9 ##	5.	5.111	10.	0.5	11.299	3.361	0.5	2.75	7.5	10.
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/06/72-04/28/93	11 ##	5.	4.591	5.	0.5	1.841	1.357	1.4	5.	5.	5.
01042	COPPER, TOTAL (UG/L AS CU)	05/06/72-04/28/93	11 ##	5.	5.727	13.	5.	5.818	2.412	5.	5.	5.	11.4
01051	LEAD, TOTAL (UG/L AS PB)	05/06/72-04/28/93	11 ##	5.	46.136	414.	0.5	15015.705	122.539	0.6	1.	28.	338.2
01092	ZINC, TOTAL (UG/L AS ZN)	05/06/72-04/28/93	11	30.	31.818	60.	5.	318.164	17.837	6.	20.	50.	58.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	73	500.	1807.534	8000.	50.	6398588.28	2529.543	50.	150.	2700.	6320.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/06/72-06/06/94	73	2.699	2.753	3.903	1.699	0.536	0.732	1.699	2.151	3.431	3.801
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			565.896								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	23 ##	0.05	0.174	1.8	0.05	0.131	0.361	0.05	0.05	0.2	0.26
70507p	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-12/07/98	31	0.05	0.075	0.9	0.005	0.026	0.161	0.01	0.01	0.05	0.164
71900	MERCURY, TOTAL (UG/L AS HG)	05/06/72-04/28/93	11 ##	0.25	0.205	0.25	0.15	0.003	0.052	0.15	0.15	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0094 Parameter Code: 00300

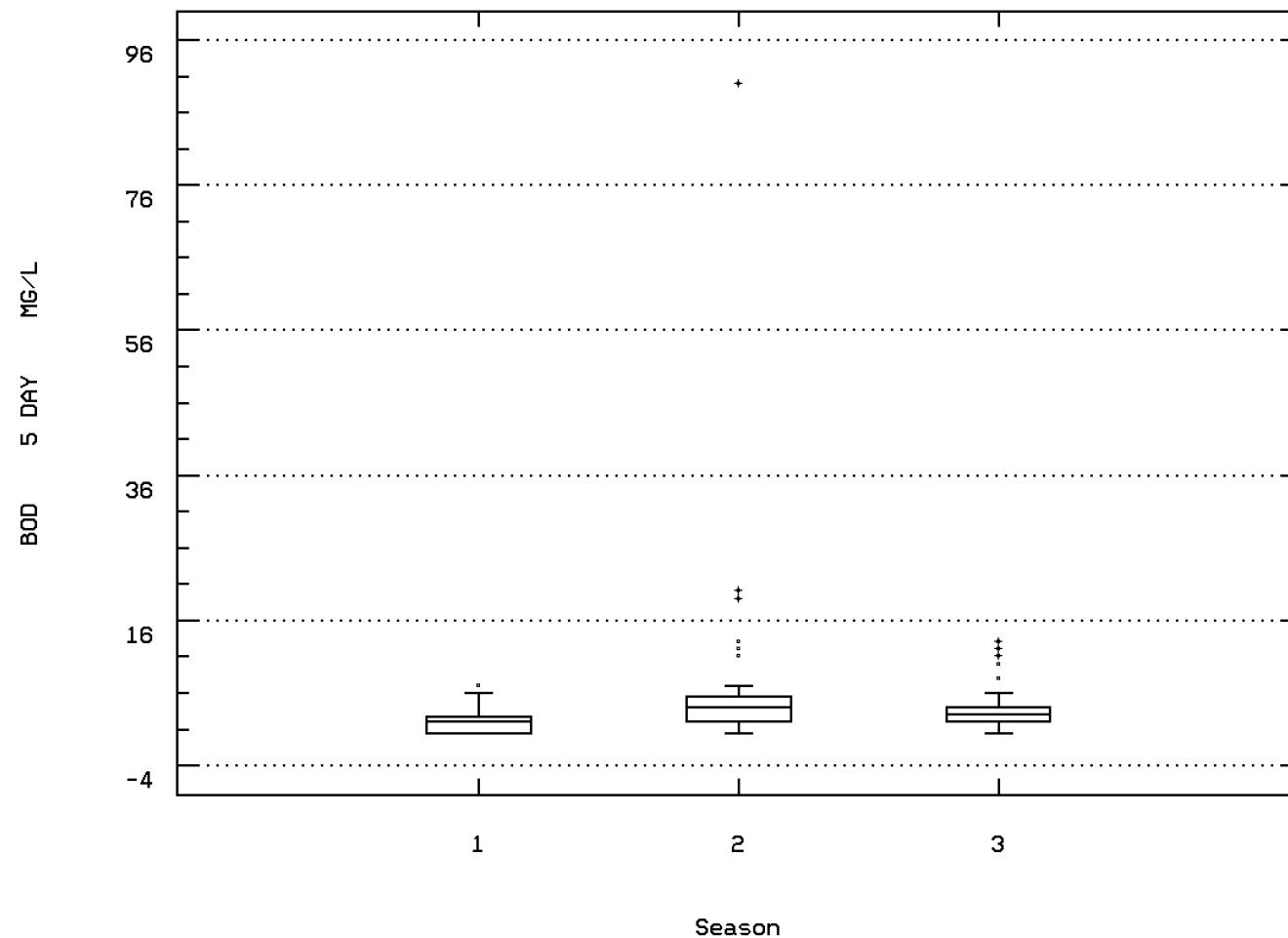
OXYGEN, DISSOLVED



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00310

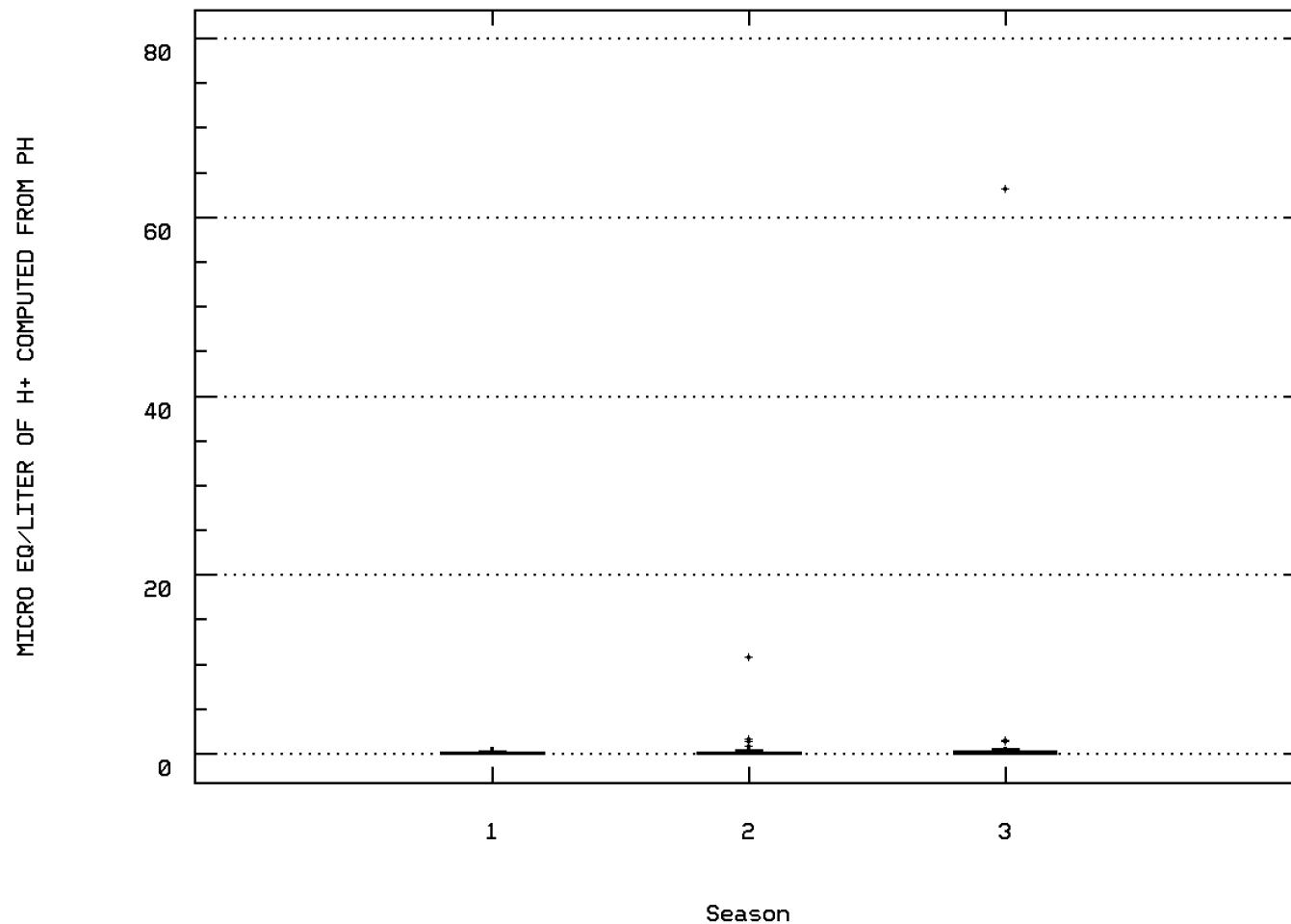
BOD, 5 DAY, 20 DEG C



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00400

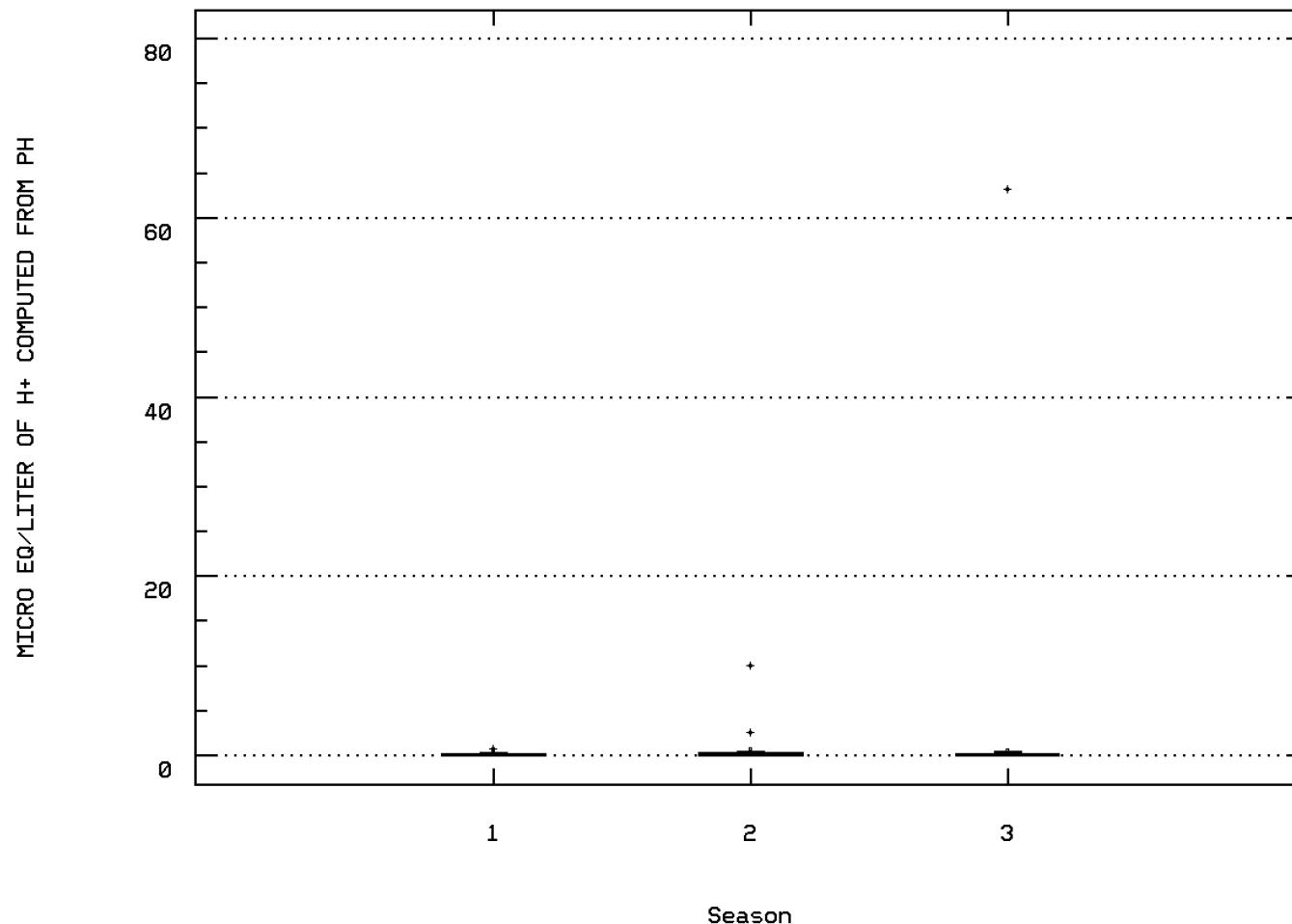
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00403

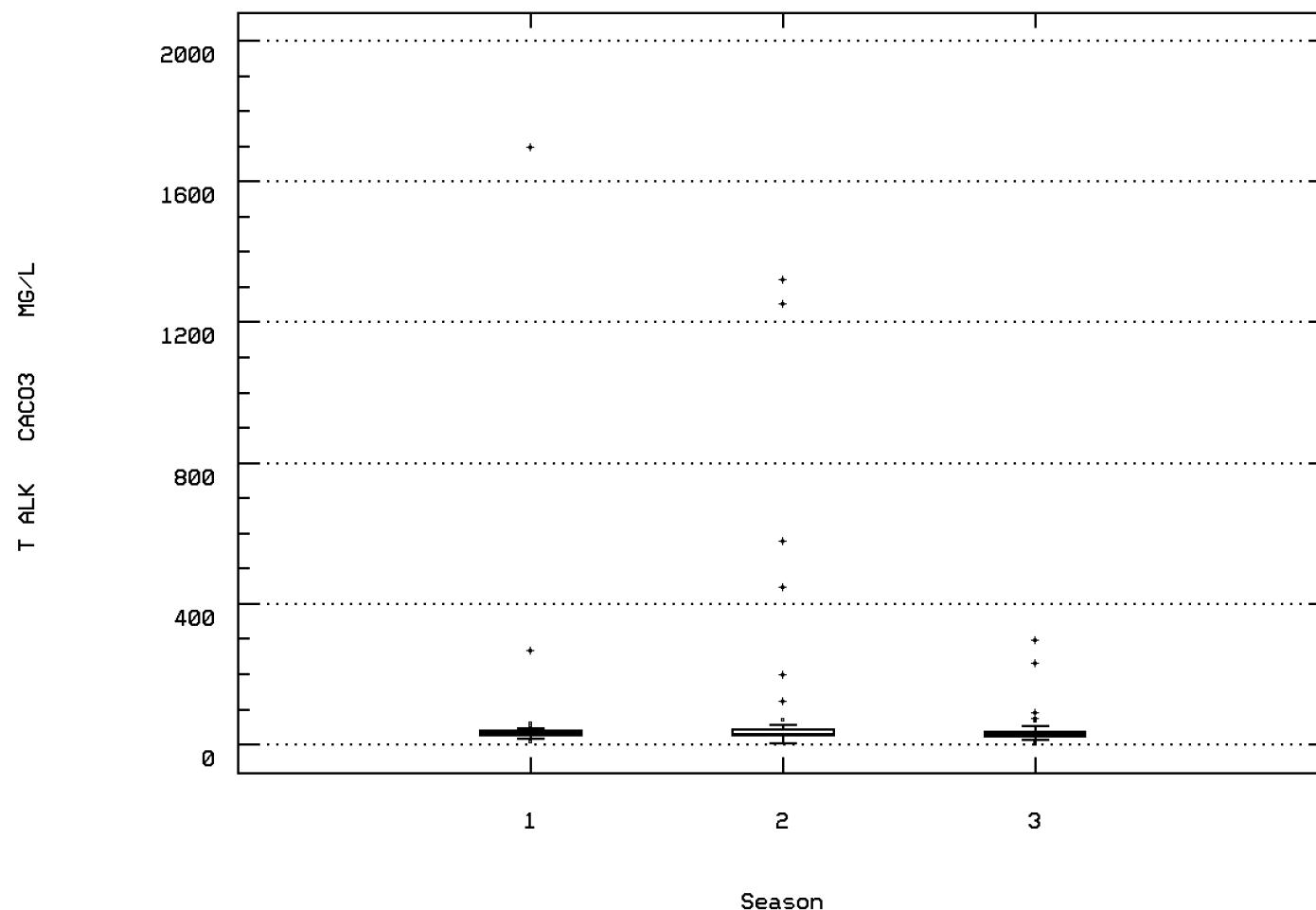
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00410

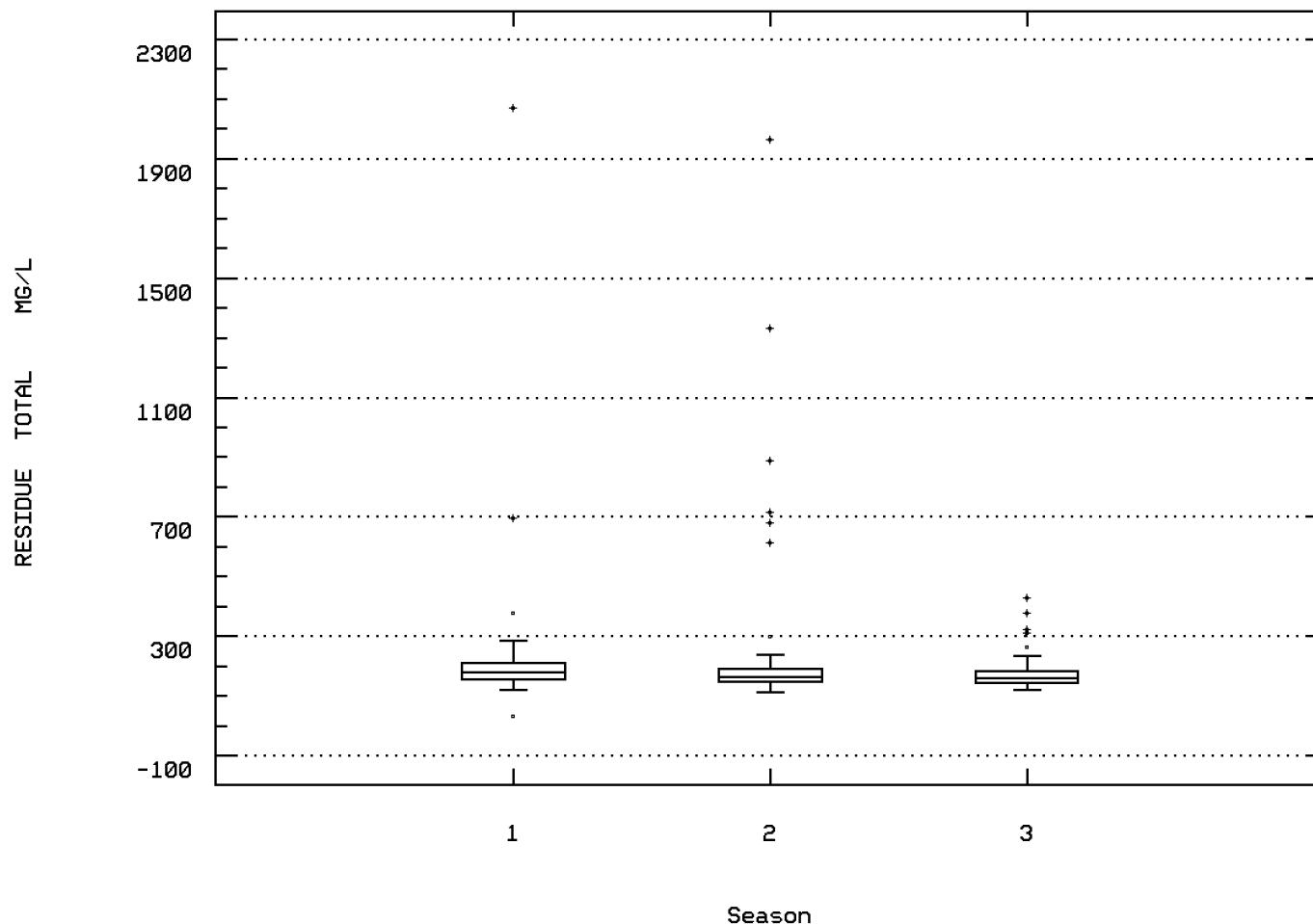
ALKALINITY, TOTAL (MG/L AS CACO<sub>3</sub>)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00500

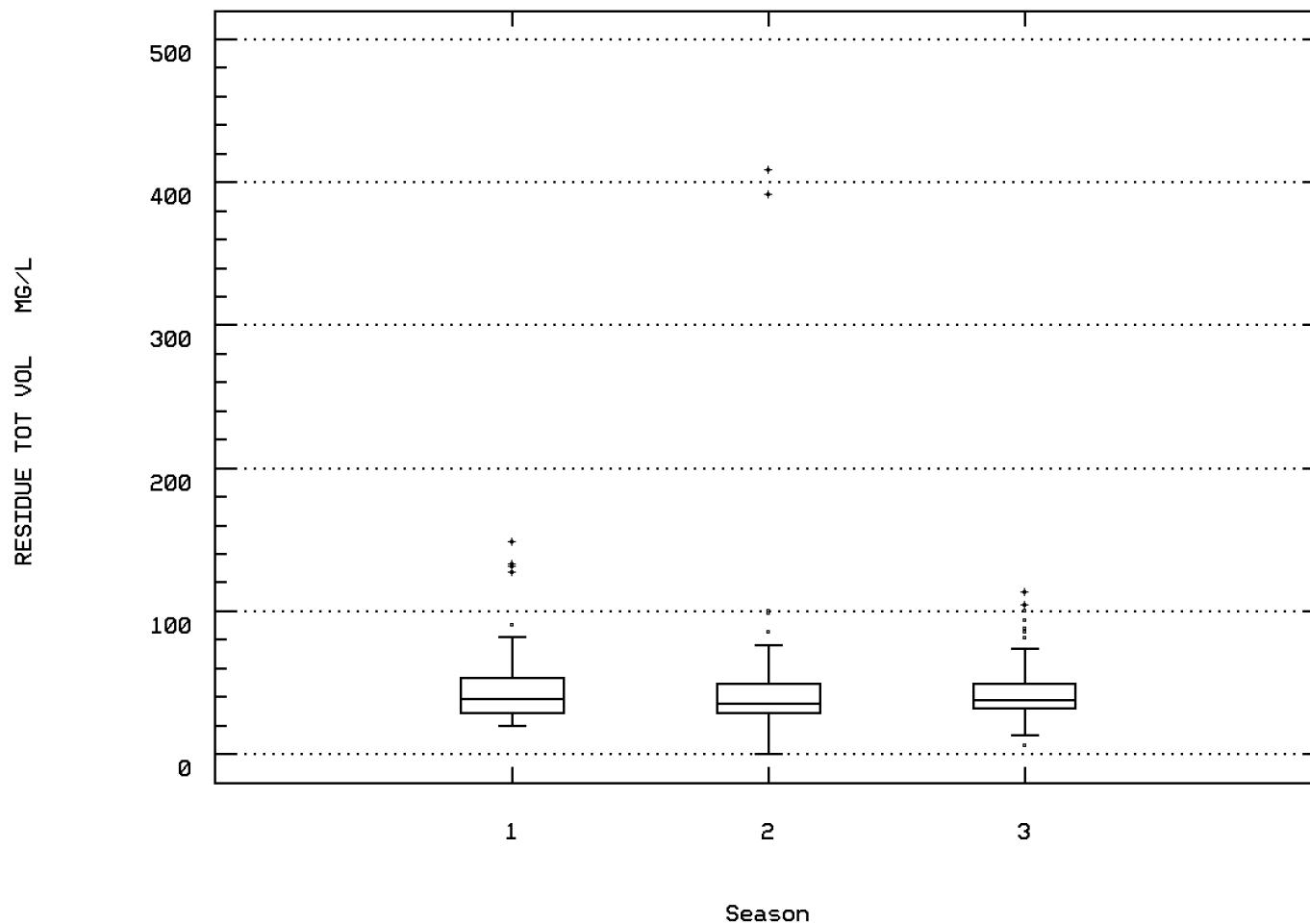
RESIDUE, TOTAL (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00505

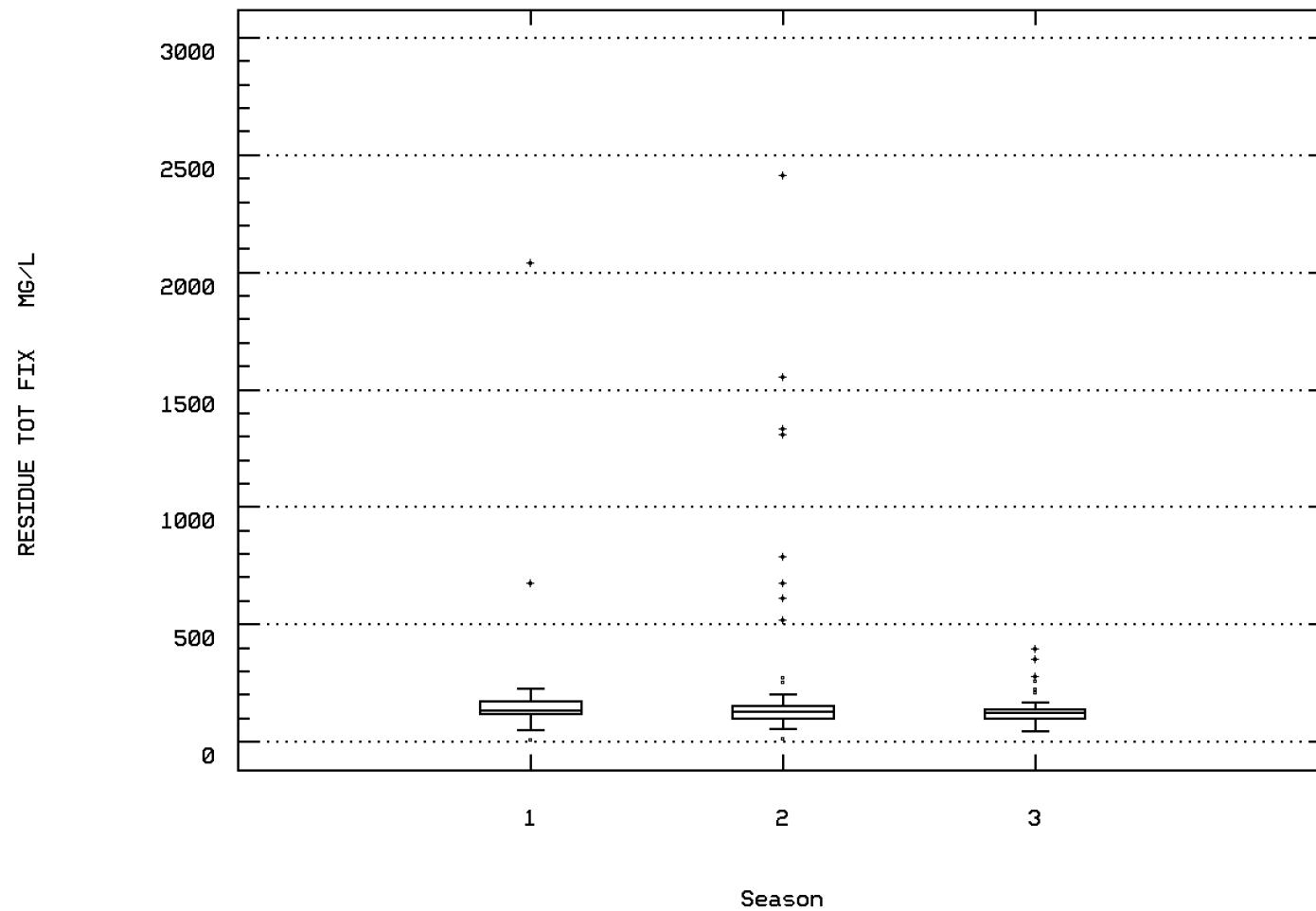
RESIDUE, TOTAL VOLATILE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00510

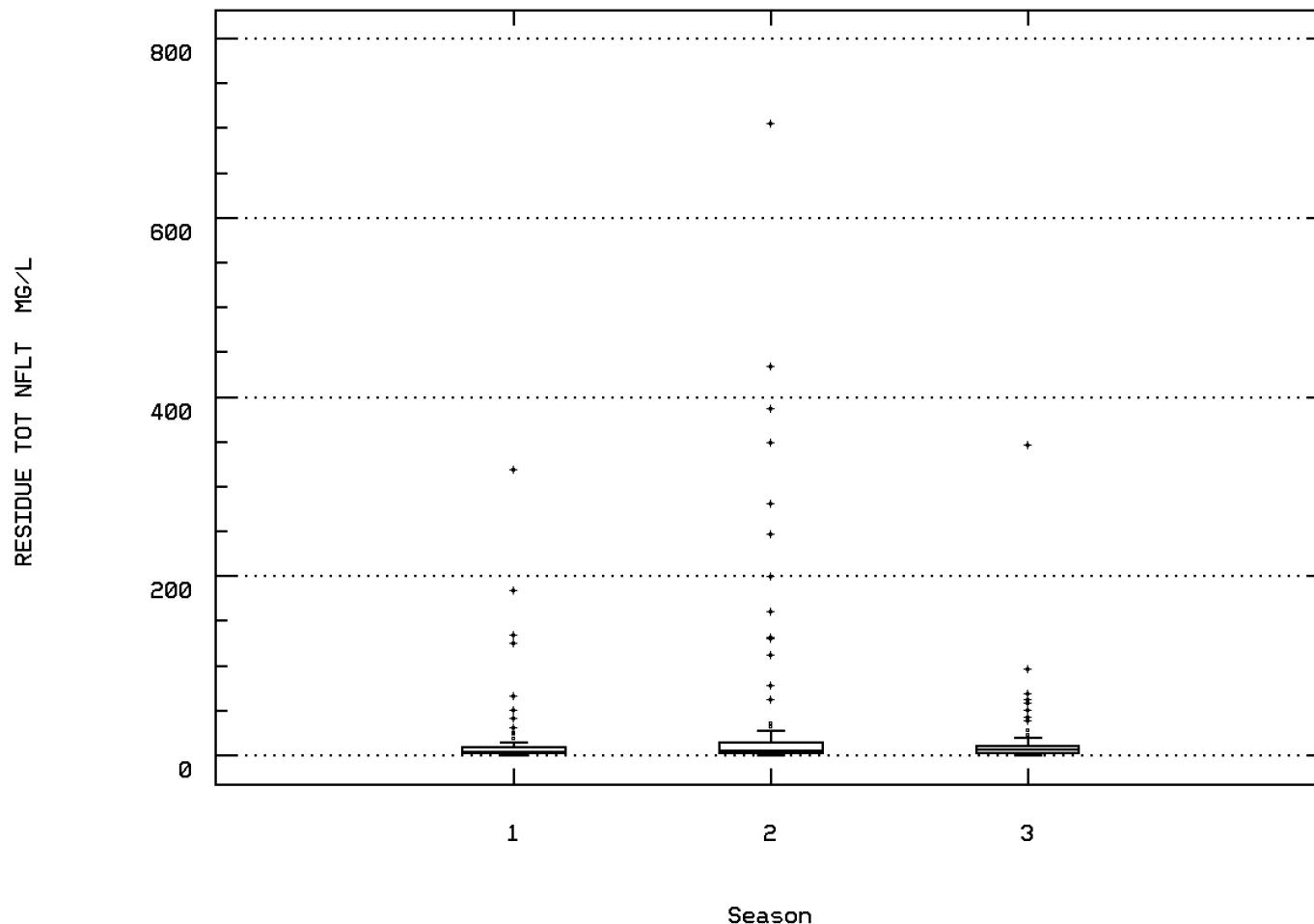
RESIDUE, TOTAL FIXED (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00530

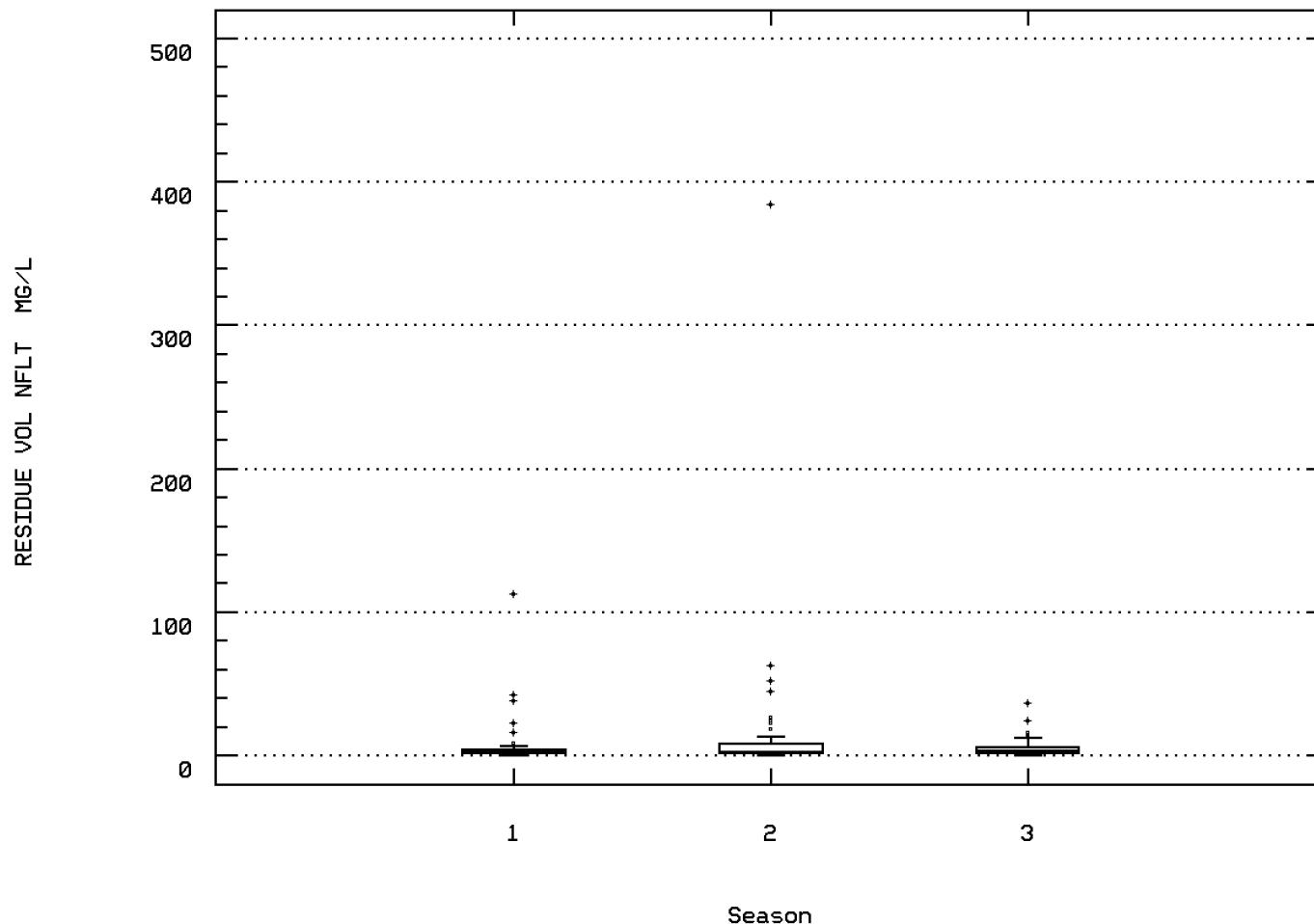
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00535

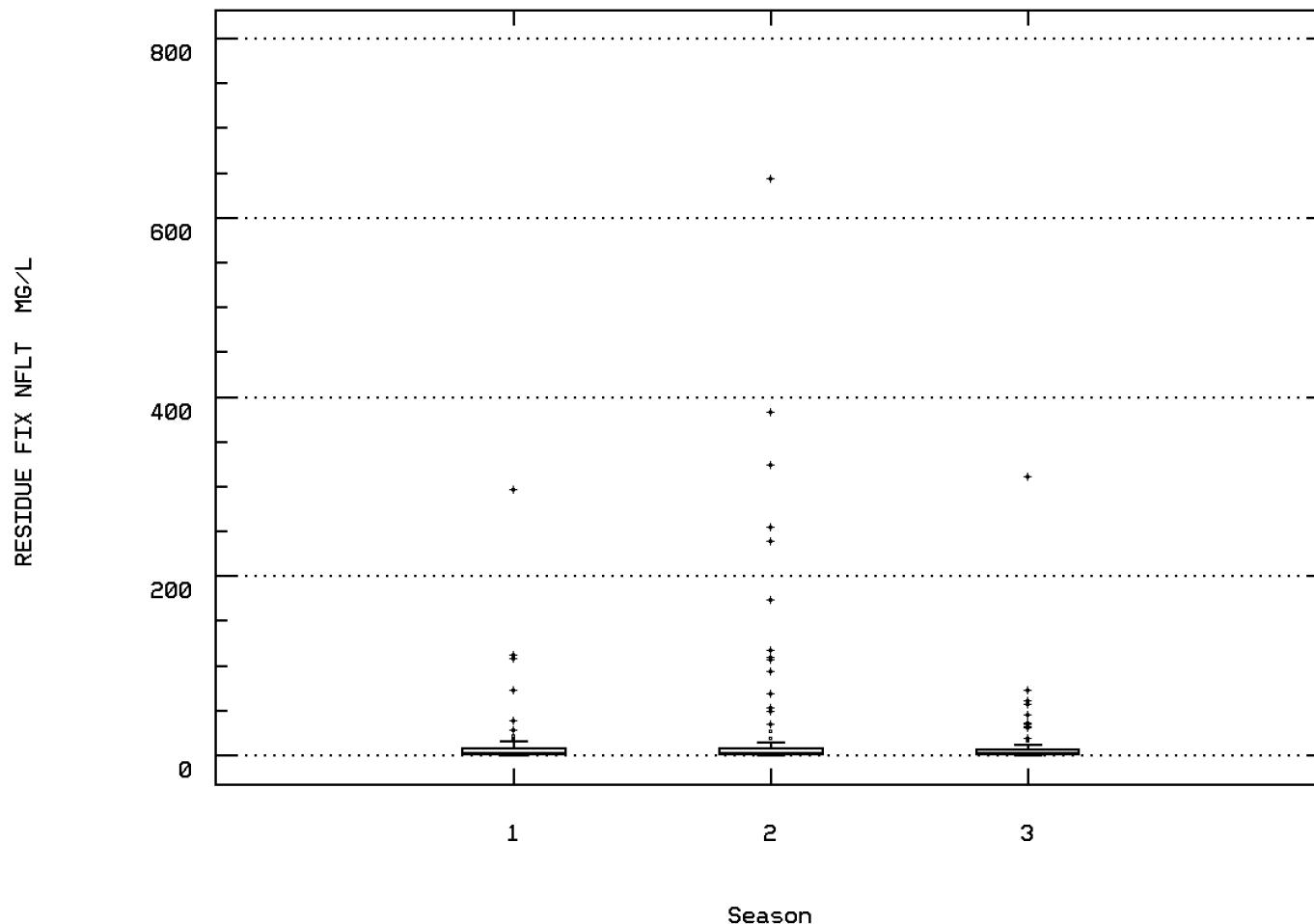
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00540

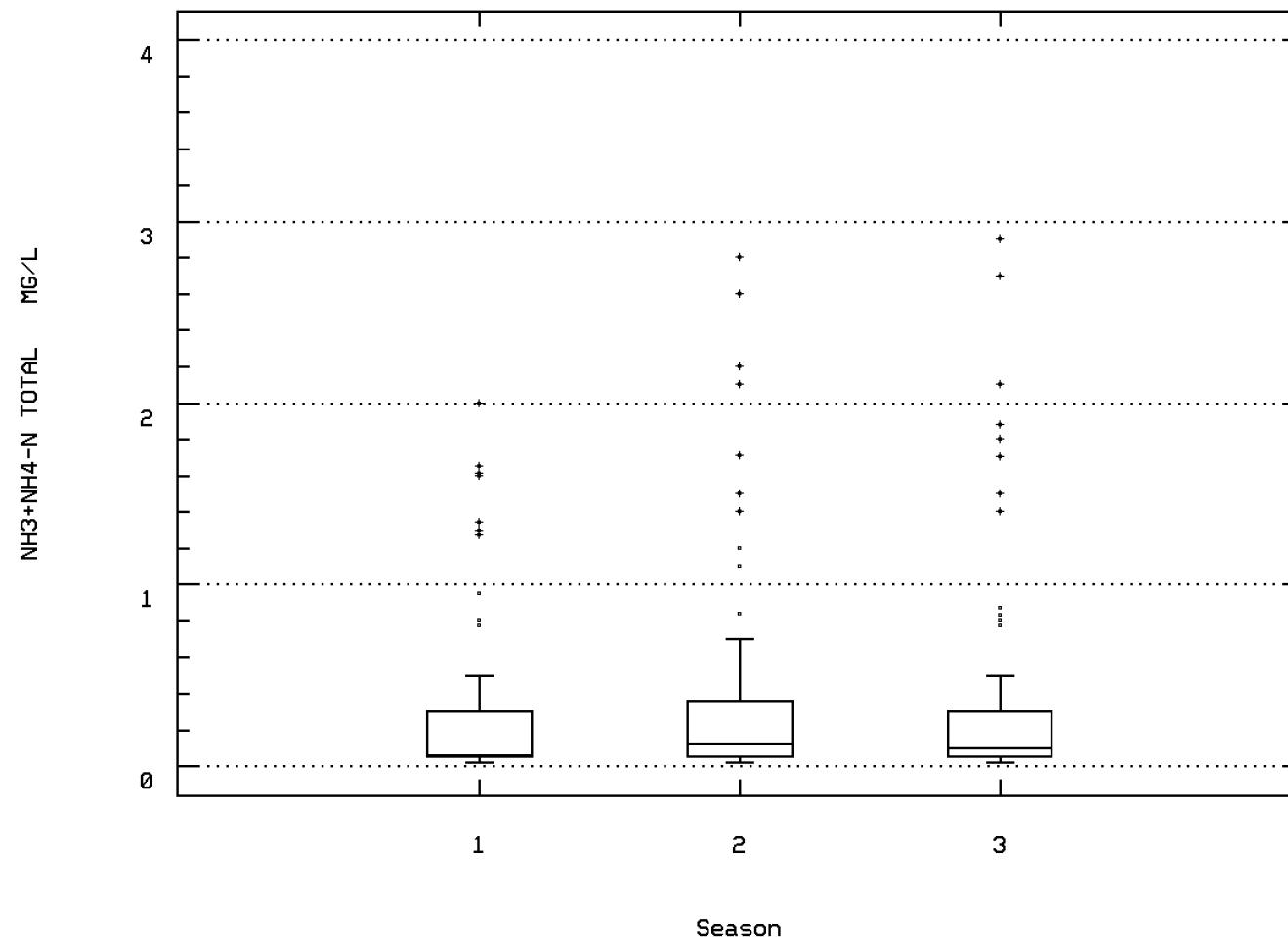
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00610

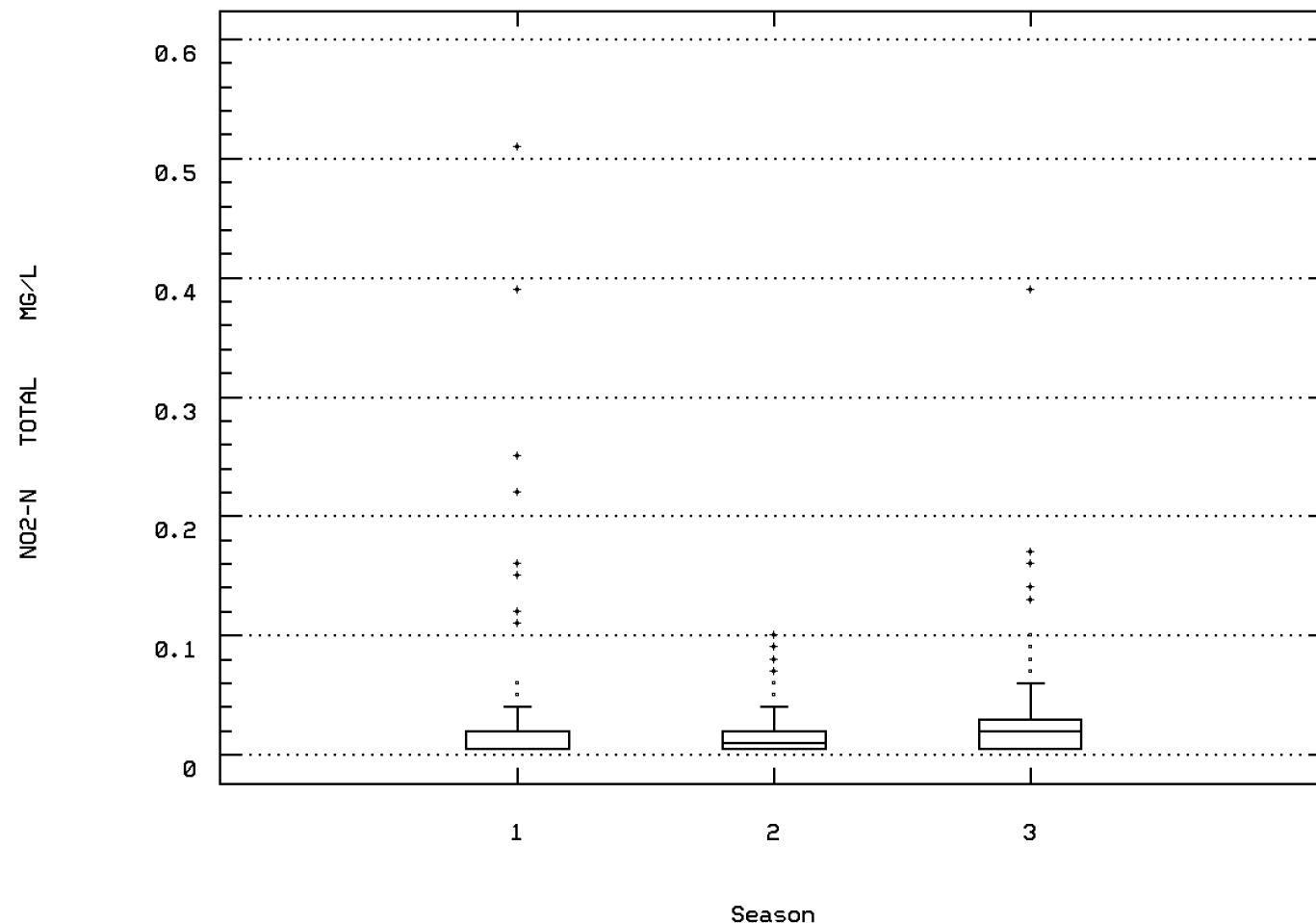
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00615

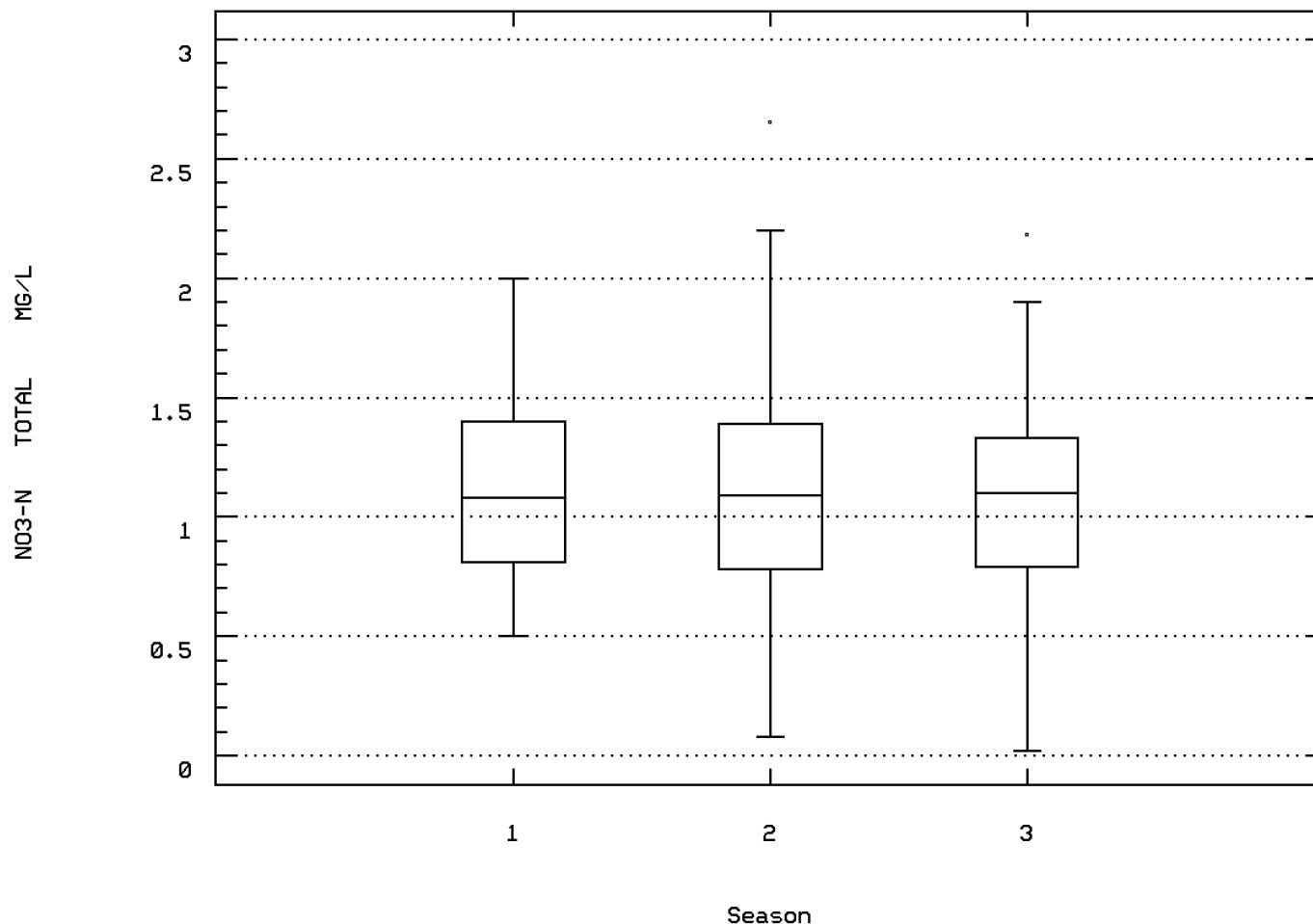
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00620

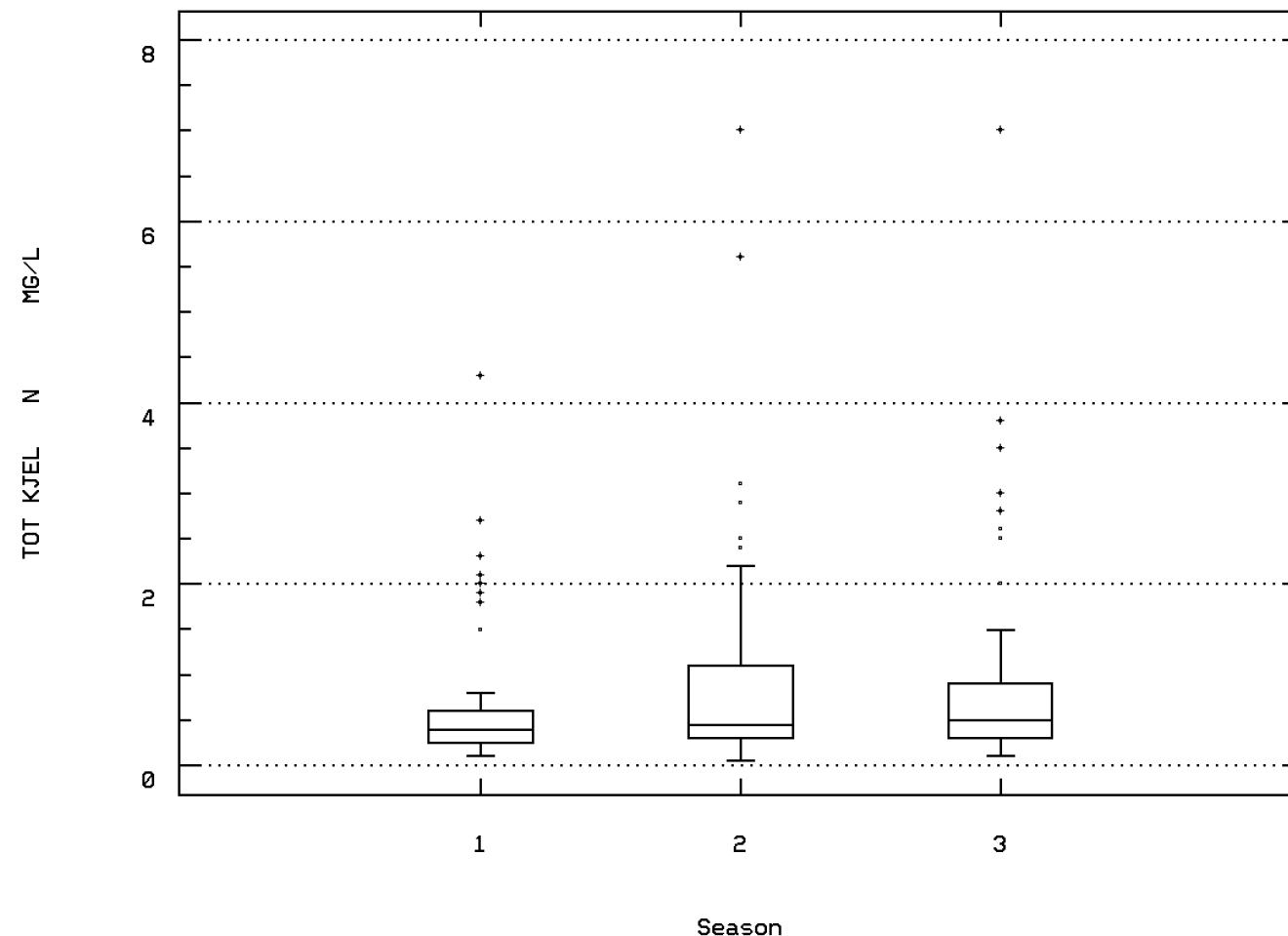
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 00625

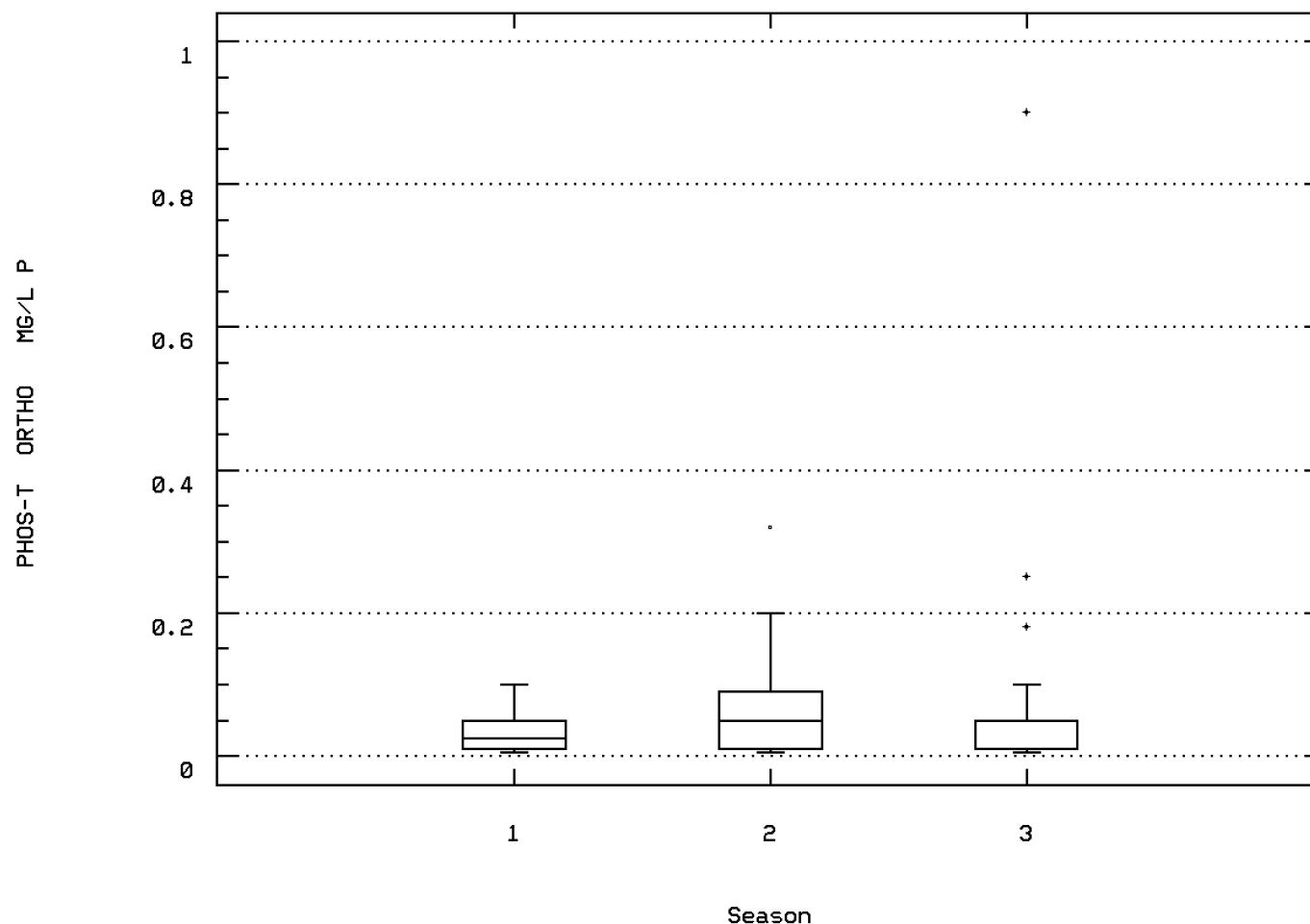
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 5 BRIDGE

Station: RICH0094 Parameter Code: 70507

PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L)



RT. 5 BRIDGE

## Station Inventory for Station: RICH0095

NPS Station ID: RICH0095	LAT/LON: 37.514726/ -77.205281	Agency: 112WRD
Location: CHICKAHOMINY RIV AT RT 60 NR WHITE OAK SWAMP, VA		FIPS State/County: 51087 VIRGINIA/HENRICO
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): 02042445
RMI-Indexes:		Within Park Boundary: No
RMI-Miles:		
HUC: 02080206	Depth of Water: 0	Aquifer:
Major Basin:	Elevation: 0	Water Body Id:
Minor Basin:		ECO Region:
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 0.20
RF3 Index: 02080206006211.63	RF3 Mile Point: 12.87	Distance from RF3: 0.01
Description:		On/Off RF1: On/Off RF3:

## Parameter Inventory for Station: RICH0095

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/11/84	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/11/84	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/11/84	1	105.	105.	105.	105.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0096

NPS Station ID: RICH0096  
 Location: RT. 60 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206062  
 RF3 Index: 02080206040600.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: CHICKAHOMINY RI. SECTION: 05 TOPO MAP #: 0140 TOPO MAP NAME: QUINTON, VA

LAT/LON: 37.514726/ -77.205366

Agency: 21VASWCB  
 FIPS State/County: 51127 VIRGINIA/NEW KENT  
 STORET Station ID(s): 2-CHK049.59 /VA2-05-X0055/VA2-4X0055  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 1.720  
 RF3 Mile Point: 0.08

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.03

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0096

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	116	17.8	15.733	28.	0.	62.723	7.92	4.4	7.8	22.2	25.6
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/19/94-10/19/94	1	153.	153.	153.	0.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-10/19/94	5	4.5	4.26	4.6	3.2	0.353	0.594	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	109	7.4	8.172	15.	4.	5.546	2.355	5.2	6.4	10.	11.4
00310 BOD, 5 DAY, 20 DEG C MG/L	08/20/68-07/30/73	12	1.75	2.458	8.	1.	3.819	1.954	1.06	1.325	2.625	6.89
00400 PH (STANDARD UNITS)	09/20/67-10/19/94	117	6.7	6.719	8.8	6.	0.138	0.371	6.3	6.5	7.	7.
00400 CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	117	6.7	6.597	8.8	6.	0.153	0.391	6.3	6.5	7.	7.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	117	0.2	0.253	1.	0.002	0.038	0.195	0.1	0.1	0.316	0.501
00403 PH, LAB, STANDARD UNITS SU	09/20/67-10/29/70	12	6.7	6.958	9.8	6.	0.926	0.962	6.12	6.5	7.15	9.05
00403 CONVERTED PH, LAB, STANDARD UNITS	09/20/67-10/29/70	12	6.7	6.595	9.8	6.	1.071	1.035	6.12	6.5	7.15	9.05
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/29/70	12	0.2	0.254	1.	0.	0.07	0.264	0.015	0.072	0.316	0.819
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-10/29/70	12	19.	19.917	30.	8.	33.174	5.76	9.8	18.	24.5	28.8
00415 ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/20/67-09/20/67	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	105	97.	189.343	9700.	1.	878681.824	937.38	67.2	82.5	115.	129.
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	106	44.	45.057	110.	6.	398.454	19.961	21.7	30.	59.	71.3
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	103	52.	54.214	136.	8.	527.621	22.97	24.	41.	69.	81.6
00515 RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	03/23/73-03/23/73	1	59.	59.	59.	59.	0.	0.	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	103	5.	9.558	116.	0.	300.751	17.342	0.5	2.	8.	18.2
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	103	3.	3.767	22.	0.	15.44	3.929	0.5	1.	5.	10.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	101	2.	6.287	115.	0.	274.447	16.566	0.	0.5	4.	11.2
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	104 ##	0.05	0.058	0.37	0.005	0.002	0.046	0.015	0.05	0.05	0.1
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	104 ##	0.005	0.008	0.05	0.005	0.	0.006	0.005	0.005	0.01	0.01
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	85	0.12	0.157	0.64	0.005	0.018	0.133	0.025	0.05	0.245	0.304
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	104	0.5	0.554	1.399	0.2	0.065	0.254	0.3	0.4	0.7	0.9
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	18 ##	0.025	0.064	0.27	0.025	0.005	0.071	0.025	0.025	0.1	0.189
00660 PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	4	0.51	0.493	0.7	0.25	0.04	0.199	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	10/12/67-10/12/67	1	24.	24.	24.	24.	0.	0.	**	**	**	**
01002 ARSENIC, TOTAL (UG/L AS AS)	04/28/71-11/20/78	9 ##	1.5	1.667	2.5	0.5	0.688	0.829	0.5	1.	2.5	2.5
01027 CADMIUM, TOTAL (UG/L AS CD)	11/23/70-11/20/78	13 ##	5.	5.038	10.	0.5	3.769	1.941	2.3	5.	5.	8.
01034 CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/20/78	22 ##	5.	7.045	20.	5.	20.617	4.541	5.	5.	6.25	17.
01042 COPPER, TOTAL (UG/L AS CU)	03/24/70-11/20/78	21 ##	5.	8.571	20.	5.	35.357	5.946	5.	5.	10.	20.
01045 IRON, TOTAL (UG/L AS FE)	06/29/70-11/20/78	4	950.	977.25	1209.	800.	30536.917	174.748	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	18 ##	5.	9.	25.	1.	42.235	6.499	4.6	5.	10.5	20.5

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/20/78	4	109.95	119.975	200.	60.	3466.669	58.878	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	9 ##	50.	40.	50.	5.	393.75	19.843	5.	27.5	50.	50.
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/20/78	22	25.	25.227	60.	5.	213.041	14.596	5.	10.	40.	40.
31505	COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	09/20/67-10/28/77	19	930.	2380.895	12000.	36.	11920452.322	3452.601	91.	430.	2300.	11000.
31505	LOG COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 3150)	09/20/67-10/28/77	19	2.968	2.984	4.079	1.556	0.426	0.653	1.959	2.633	3.362	4.041
31505	GM COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	GEOMETRIC MEAN =			963.879								
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	93 ##	50.	171.29	6400.	50.	453654.839	673.539	50.	50.	100.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	93 ##	1.699	1.889	3.806	1.699	0.12	0.346	1.699	1.699	2.	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			77.382								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	99 ##	0.05	0.104	0.5	0.025	0.007	0.085	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	100	0.05	0.075	0.28	0.005	0.004	0.06	0.02	0.04	0.1	0.159
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	19 ##	0.25	0.233	0.25	0.025	0.003	0.055	0.15	0.25	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0096

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	5	1	0.20	4	0	0.00	1	1	1.00						
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	109	1	0.01	34	0	0.00	41	1	0.02	34	0	0.00			
00400	PH	Fresh Chronic	9.	117	0	0.00	40	0	0.00	43	0	0.00	34	0	0.00			
00403	PH, LAB	Other-Lo Lim.	6.5	117	43	0.37	40	11	0.28	43	23	0.53	34	9	0.26			
		Fresh Chronic	9.	12	1	0.08	4	1	0.25	3	0	0.00	5	0	0.00			
		Other-Lo Lim.	6.5	12	4	0.33	4	1	0.25	3	2	0.67	5	1	0.20			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	104	0	0.00	31	0	0.00	40	0	0.00	33	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	85	0	0.00	27	0	0.00	32	0	0.00	26	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	18	0	0.00	4	0	0.00	8	0	0.00	6	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	9	0	0.00	2	0	0.00	3	0	0.00	4	0	0.00			
		Drinking Water	50.	9	0	0.00	2	0	0.00	3	0	0.00	4	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2 &	1	0.50	1	0	0.00				1	1	1.00			
		Drinking Water	5.	2 &	1	0.50	1	0	0.00				1	1	1.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	22	0	0.00	3	0	0.00	8	0	0.00	11	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	21	4	0.19	3	1	0.33	8	1	0.13	10	2	0.20			
01051	LEAD, TOTAL	Drinking Water	1300.	21	0	0.00	3	0	0.00	8	0	0.00	10	0	0.00			
		Fresh Acute	82.	18	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00			
		Drinking Water	15.	18	3	0.17	3	1	0.33	8	2	0.25	7	0	0.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	9	0	0.00	1	0	0.00	3	0	0.00	5	0	0.00			
		Drinking Water	100.	9	0	0.00	1	0	0.00	3	0	0.00	5	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	22	0	0.00	3	0	0.00	8	0	0.00	11	0	0.00			
		Drinking Water	5000.	22	0	0.00	3	0	0.00	8	0	0.00	11	0	0.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	19	9	0.47	10	4	0.40	4	3	0.75	5	2	0.40			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	93	14	0.15	27	4	0.15	38	4	0.11	28	6	0.21			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00				7	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	19	0	0.00	4	0	0.00	8	0	0.00	7	0	0.00			
		Drinking Water	2.	19	0	0.00	4	0	0.00	8	0	0.00	7	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1967 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	2	22.2	22.2	24.4	20.	9.68	3.111	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	1	7.6	7.6	7.6	0.	0.		**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	1	8.8	8.8	8.8	8.8	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	1	8.8	8.8	8.8	8.8	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	1	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	2	84.	84.	110.	58.	1352.	36.77	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	2	13.	13.	22.	4.	162.	12.728	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1968 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	5	25.6	23.56	27.2	18.3	13.823	3.718	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	4	9.25	9.125	11.	7.	3.063	1.75	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	5	7.	7.2	7.7	6.8	0.145	0.381	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	5	7.	7.086	7.7	6.8	0.161	0.402	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	5	0.1	0.082	0.158	0.02	0.003	0.057	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	1	92.	92.	92.	92.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	3	20.	16.133	25.6	2.8	141.173	11.882	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	3	9.	9.333	11.8	7.2	5.373	2.318	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	3	6.5	6.667	7.2	6.3	0.223	0.473	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	3	6.5	6.532	7.2	6.3	0.25	0.5	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	3	0.316	0.294	0.501	0.063	0.048	0.22	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	3	104.	105.	135.	76.	871.	29.513	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	3	48.	47.	71.	22.	601.	24.515	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	2	60.	60.	64.	56.	32.	5.657	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	2	4.5	4.5	5.	4.	0.5	0.707	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	3	3.	3.	3.333	5.	2.	2.333	1.528	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	2	2.	2.	2.	2.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	3	0.15	0.127	0.2	0.03	0.008	0.087	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	3##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	3	0.27	0.287	0.56	0.03	0.07	0.265	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	3	0.59	0.587	0.61	0.56	0.001	0.025	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	11	16.1	14.727	23.3	4.4	55.878	7.475	4.52	5.	22.2	23.08
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	7.4	8.382	10.9	6.	3.39	1.841	6.08	7.1	10.6	10.88

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### Annual Analysis for 1970 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.7	6.764	7.	6.5	0.033	0.18	6.52	6.6	7.	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.7	6.731	7.	6.5	0.034	0.184	6.52	6.6	7.	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	11	0.2	0.186	0.316	0.1	0.005	0.072	0.1	0.1	0.251	0.303
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	117.	984.091	9700.	91.	8356474.291	2890.757	93.	105.	120.	7785.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	45.	49.	86.	18.	442.	21.024	19.4	30.	70.	83.2
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	63.	62.091	107.	15.	708.691	26.621	19.	46.	89.	103.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	7.	8.364	19.	1.	31.055	5.573	1.2	5.	13.	18.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	4.	5.	12.	1.	11.6	3.406	1.	3.	7.	11.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	3.	3.364	8.	0.	5.855	2.42	0.2	2.	4.	7.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10	0.09	0.116	0.37	0.03	0.01	0.102	0.031	0.04	0.04	0.148
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.005	0.009	0.03	0.005	0.	0.008	0.005	0.005	0.01	0.028
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	10	0.14	0.162	0.3	0.1	0.005	0.07	0.1	0.1	0.225	0.294
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	0.5	0.55	0.8	0.3	0.036	0.19	0.3	0.375	0.725	0.8
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	2	150.	150.	200.	100.	5000.	70.711	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	2	2.151	2.151	2.301	2.	0.045	0.213	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			141.421								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	10	0.175	0.195	0.5	0.025	0.024	0.155	0.025	0.044	0.3	0.48
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	10	0.135	0.156	0.27	0.04	0.008	0.088	0.041	0.088	0.26	0.269

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### Annual Analysis for 1971 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	11	15.6	15.064	26.7	1.1	81.965	9.053	1.76	5.6	21.1	26.7
03000	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	7.6	8.164	11.4	5.	5.279	2.298	5.12	6.2	10.6	11.36
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.7	6.645	6.8	6.	0.067	0.258	6.06	6.7	6.8	6.8
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.7	6.551	6.8	6.	0.077	0.277	6.06	6.7	6.8	6.8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	11	0.2	0.281	1.	0.158	0.067	0.258	0.158	0.2	0.9	
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	122.	121.091	147.	89.	364.291	19.086	90.8	107.	135.	146.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	50.	44.727	75.	9.	449.818	21.209	9.	35.	60.	72.4
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	70.	76.364	136.	59.	474.255	21.777	59.2	60.	80.	126.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	6.	15.545	76.	2.	490.873	22.156	2.4	4.	22.	67.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	3.	3.273	10.	1.	6.618	2.573	1.	1.	4.	9.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	3.	12.273	75.	1.	488.418	22.1	1.	1.	18.	64.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.05	0.053	0.12	0.01	0.002	0.042	0.01	0.01	0.09	0.12
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.01	0.012	0.02	0.01	0.	0.004	0.01	0.01	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	11	0.19	0.198	0.49	0.01	0.022	0.15	0.013	0.03	0.29	0.45
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	11	0.5	0.509	0.8	0.3	0.021	0.145	0.32	0.4	0.6	0.78
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	11 ##	50.	677.273	6400.	50.	3614181.818	1901.1	50.	50.	200.	5200.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	11 ##	1.699	2.055	3.806	1.699	0.432	0.657	1.699	1.699	2.301	3.565
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			113.431								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	11	0.2	0.168	0.4	0.05	0.011	0.103	0.05	0.05	0.2	0.36
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	11	0.13	0.134	0.28	0.04	0.006	0.077	0.042	0.05	0.19	0.264

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	11	12.2	13.273	27.8	2.2	68.332	8.266	2.42	6.1	21.1	26.68
03000	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	10	9.5	9.46	13.6	6.8	6.4	2.53	6.8	6.8	11.5	13.42
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.5	6.573	6.8	6.3	0.032	0.179	6.3	6.5	6.7	6.8
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.5	6.539	6.8	6.3	0.033	0.183	6.3	6.5	6.7	6.8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	11	0.316	0.289	0.501	0.158	0.015	0.123	0.158	0.2	0.316	0.501

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### Annual Analysis for 1972 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	96.	95.091	129.	56.	472.091	21.728	58.6	87.	105.	128.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	35.	38.545	80.	6.	363.873	19.075	9.6	25.	49.	74.6
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	52.	55.636	91.	16.	488.255	22.096	19.2	42.	79.	88.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	6.	16.818	116.	3.	1099.164	33.154	3.2	4.	12.	96.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	2.	2.818	11.	0.	9.164	3.027	0.2	1.	4.	9.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	4.	14.	115.	1.	1127.8	33.583	1.	2.	7.	93.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.01	0.038	0.15	0.005	0.002	0.047	0.005	0.005	0.05	0.14
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.01	0.011	0.02	0.005	0.	0.005	0.006	0.01	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	10	0.155	0.188	0.31	0.08	0.008	0.088	0.082	0.115	0.283	0.308
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	11	0.5	0.545	1.199	0.3	0.071	0.266	0.3	0.3	0.6	1.119
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	11	100.	104.545	200.	50.	2727.273	52.223	50.	50.	100.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	11	2.	1.973	2.301	1.699	0.044	0.211	1.699	1.699	2.	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	93.893								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	11	0.1	0.1	0.2	0.05	0.003	0.055	0.05	0.05	0.05	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	11	0.07	0.086	0.16	0.03	0.002	0.048	0.03	0.05	0.05	0.158

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### Annual Analysis for 1973 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	12	17.8	15.25	26.7	5.6	65.761	8.109	5.6	6.525	22.075	26.19
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	12	8.1	8.567	13.	5.2	6.464	2.542	5.38	6.2	11.	12.46
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	12	6.7	6.658	7.	6.4	0.034	0.183	6.43	6.5	6.775	6.97
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	12	6.7	6.625	7.	6.4	0.035	0.186	6.43	6.5	6.775	6.97
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	12	0.2	0.237	0.398	0.1	0.009	0.092	0.108	0.169	0.316	0.374
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	12	82.5	86.917	124.	1.	1208.265	34.76	18.7	73.	116.5	123.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	12	39.	37.333	47.	23.	68.788	8.294	24.8	30.	46.	46.7
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	12	54.5	58.417	95.	25.	576.992	24.021	26.8	38.	80.25	93.5
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	12	6.5	7.667	26.	1.	53.333	7.303	1.	2.	9.75	23.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	4.	4.	10.	0.	9.6	3.098	0.2	1.	6.	9.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	1.	4.364	20.	0.	41.055	6.407	0.	1.	8.	18.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	12##	0.05	0.044	0.05	0.005	0.	0.015	0.01	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	12##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.009	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	12	0.21	0.237	0.49	0.01	0.02	0.142	0.034	0.133	0.328	0.478
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	12	0.9	0.875	1.299	0.3	0.08	0.283	0.36	0.8	1.	1.299
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	12##	75.	116.667	400.	50.	12878.788	113.485	50.	50.	100.	370.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	12##	1.849	1.939	2.602	1.699	0.099	0.315	1.699	1.699	2.	2.565
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	86.979								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	12##	0.075	0.1	0.2	0.05	0.004	0.064	0.05	0.05	0.175	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	12	0.1	0.082	0.1	0.04	0.001	0.026	0.043	0.05	0.1	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	11	15.	15.236	25.	4.4	54.635	7.392	4.86	7.2	22.2	24.66
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	12	8.2	8.458	15.	6.	6.51	2.551	6.06	6.4	9.825	13.62
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	12	6.7	6.725	7.	6.4	0.051	0.226	6.43	6.5	7.	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	12	6.7	6.674	7.	6.4	0.054	0.232	6.43	6.5	7.	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	12	0.2	0.212	0.398	0.1	0.011	0.104	0.1	0.1	0.316	0.374
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	12	86.5	83.667	112.	64.	235.152	15.335	64.3	67.25	93.75	109.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	34.	35.364	87.	10.	427.855	20.685	11.	22.	44.	78.8
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	12	50.5	46.25	72.	8.	400.205	20.005	13.7	28.	64.25	71.4

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	12	8.	7.917	17.	0.	31.902	5.648	0.3	2.5	13.	16.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	6.	5.545	12.	0.	23.273	4.824	0.	1.	10.	11.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	12	2.	2.333	6.	0.	5.879	2.425	0.	0.	4.75	6.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	12 ##	0.05	0.058	0.1	0.05	0.	0.019	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	12 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	12	0.09	0.139	0.64	0.005	0.03	0.173	0.007	0.035	0.163	0.523
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	12	0.55	0.617	0.9	0.4	0.04	0.199	0.4	0.425	0.85	0.9
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	12 ##	50.	66.667	200.	50.	1969.697	44.381	50.	50.	50.	170.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	12 ##	1.699	1.774	2.301	1.699	0.035	0.187	1.699	1.699	1.699	2.211
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =			59.46					
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	11 ##	0.05	0.077	0.2	0.05	0.002	0.047	0.05	0.05	0.1	0.18
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	12 ##	0.05	0.062	0.1	0.05	0.001	0.023	0.05	0.05	0.088	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	13	16.1	15.885	26.1	0.	71.89	8.479	1.76	8.9	24.15	25.42
03000	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	13	6.	7.238	12.2	4.	6.959	2.638	4.32	5.2	9.4	11.88
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	13	6.5	6.531	6.8	6.	0.042	0.206	6.16	6.5	6.7	6.8
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	13	6.5	6.478	6.8	6.	0.045	0.213	6.16	6.5	6.7	6.8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	13	0.316	0.333	1.	0.158	0.046	0.214	0.158	0.2	0.316	0.759
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	12	96.	98.667	153.	68.	558.97	23.643	70.4	80.	113.	144.3
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	12	49.5	50.083	92.	15.	346.811	18.623	20.7	40.25	58.	84.5
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	12	48.5	48.583	82.	9.	466.447	21.597	13.2	29.5	67.	79.3
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	12	5.	16.167	82.	2.	561.788	23.702	2.	4.	22.5	69.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	12	3.	4.833	20.	2.	26.515	5.149	2.	2.	5.5	16.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	12	4.	11.833	74.	0.	435.97	20.88	0.	2.	16.5	58.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	12 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	12 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.009
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	12	0.105	0.118	0.31	0.02	0.007	0.083	0.022	0.058	0.138	0.286
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	12	0.4	0.492	1.199	0.2	0.068	0.261	0.23	0.325	0.575	1.049
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	13 ##	50.	173.077	1500.	50.	159423.077	399.278	50.	50.	100.	940.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	13 ##	1.699	1.882	3.176	1.699	0.168	0.41	1.699	1.699	2.	2.706
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =			76.219					
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	12 ##	0.075	0.108	0.3	0.05	0.007	0.082	0.05	0.05	0.175	0.27
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	12	0.05	0.061	0.1	0.02	0.001	0.025	0.023	0.05	0.08	0.097

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	10	16.7	15.94	23.3	4.4	42.856	6.546	4.74	10.275	22.35	23.25
03000	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	9	6.5	7.433	11.6	5.2	4.053	2.013	5.2	5.9	8.75	11.6
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	10	7.	6.93	7.5	6.5	0.082	0.287	6.5	6.725	7.	7.45
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	10	7.	6.847	7.5	6.5	0.09	0.3	6.5	6.725	7.	7.45
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	10	0.1	0.142	0.316	0.032	0.009	0.096	0.038	0.1	0.198	0.316
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	10	102.5	101.5	116.	87.	134.056	11.578	87.1	88.75	111.75	115.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	10	64.5	65.3	81.	54.	89.789	9.476	54.	54.75	73.75	80.5
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	10	33.5	36.2	55.	15.	161.956	12.726	15.9	27.75	47.25	54.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	10 ##	1.25	2.85	10.	0.5	10.225	3.198	0.5	0.5	4.5	9.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	10 ##	1.25	2.85	10.	0.5	10.225	3.198	0.5	0.5	4.5	9.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	10 ##	0.25	0.25	0.5	0.	0.069	0.264	0.	0.	0.5	0.5

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### Annual Analysis for 1976 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	10 ##	0.025	0.071	0.27	0.025	0.007	0.084	0.025	0.025	0.115	0.259
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	0.4	0.48	1.399	0.2	0.115	0.339	0.21	0.3	0.5	1.309
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	10 ##	50.	90.	200.	50.	3777.778	61.464	50.	50.	125.	200
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	10 ##	1.699	1.88	2.301	1.699	0.064	0.254	1.699	1.699	2.075	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	75.786								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/11/70-06/14/79	10 ##	0.05	0.07	0.2	0.05	0.002	0.048	0.05	0.05	0.063	0.19
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	10	0.03	0.034	0.06	0.01	0.	0.014	0.011	0.028	0.043	0.059

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### Annual Analysis for 1977 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	8	13.5	12.563	21.	0.6	54.463	7.38	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	8	7.1	7.275	11.2	4.4	4.399	2.097	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	8	7.	6.85	7.5	6.	0.194	0.441	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	8	7.	6.623	7.5	6.	0.253	0.503	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	8	0.1	0.238	1.	0.032	0.102	0.319	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	8	97.5	99.375	126.	80.	245.696	15.675	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	8	47.5	46.875	66.	21.	347.268	18.635	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	8	57.	52.5	72.	23.	283.143	16.827	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	8 ##	1.25	10.5	72.	0.5	620.143	24.903	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	7	2.	2.786	9.	0.5	10.071	3.174	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	8 ##	0.5	8.25	63.	0.	489.5	22.125	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	8 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	8 ##	0.005	0.011	0.05	0.005	0.	0.016	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	4 ##	0.048	0.048	0.07	0.025	0.001	0.026	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	8	0.5	0.5	0.7	0.3	0.023	0.151	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	8 ##	50.	97.5	430.	50.	18050.	134.35	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	8 ##	1.699	1.816	2.633	1.699	0.109	0.33	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	65.431								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	8 ##	0.05	0.056	0.1	0.05	0.	0.018	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	8	0.025	0.028	0.07	0.005	0.	0.022	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	11	15.	14.918	28.	0.1	81.144	9.008	1.08	6.	24.	27.4
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	6.8	7.682	14.	4.8	8.44	2.905	4.82	5.2	10.6	13.36
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.7	6.736	7.5	6.2	0.149	0.385	6.22	6.3	7.	7.4
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	11	6.7	6.598	7.5	6.2	0.17	0.412	6.22	6.3	7.	7.4
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	11	0.2	0.252	0.631	0.032	0.04	0.2	0.045	0.1	0.501	0.605
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	10	92.5	94.4	146.	57.	977.378	31.263	57.3	63.	119.5	145.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	10	32.	39.	71.	16.	367.333	19.166	16.1	23.75	57.25	70.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	10	50.	55.4	106.	23.	571.378	23.904	23.8	38.5	69.	102.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	2.	3.15	10.	0.5	9.725	3.118	0.5	0.5	5.25	9.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	10	1.5	1.65	4.	0.5	1.392	1.18	0.5	0.5	2.25	3.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	10 ##	0.75	1.75	7.	0.5	4.625	2.151	0.5	0.5	2.5	6.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	0.4	0.42	0.9	0.2	0.04	0.199	0.21	0.3	0.45	0.87

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### Annual Analysis for 1978 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	10 ##	50.	70.	200.	50.	2333.333	48.305	50.	50.	62.5	190.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	10 ##	1.699	1.789	2.301	1.699	0.041	0.203	1.699	1.699	1.774	2.271
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	61.557							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	10 ##	0.05	0.07	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	10	0.04	0.038	0.12	0.005	0.001	0.034	0.005	0.009	0.05	0.113

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	3	20.	15.333	20.5	5.5	72.583	8.52	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	4	8.95	8.525	9.8	6.4	2.369	1.539	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	4	6.75	6.675	7.	6.2	0.156	0.395	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	4	6.682	6.542	7.	6.2	0.179	0.423	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-10/19/94	4	0.208	0.287	0.631	0.1	0.063	0.251	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	4	76.	71.5	81.	53.	163.667	12.793	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	4	33.	33.	39.	27.	26.667	5.164	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	4	45.	38.5	50.	14.	273.	16.523	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	4 ##	0.5	0.625	1.	0.5	0.063	0.25	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	4 ##	0.5	0.625	1.	0.5	0.063	0.25	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	3 ##	0.5	0.333	0.5	0.	0.083	0.289	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	4 ##	0.05	0.05	0.05	0.05	0.05	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	4 ##	0.005	0.005	0.005	0.005	0.005	0.	0.	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	4	0.45	0.4	0.5	0.2	0.02	0.141	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	4 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	4 ##	1.699	1.699	1.699	1.699	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	50.							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	4 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	4	0.035	0.033	0.05	0.01	0.	0.017	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	5	25.7	22.72	25.9	12.4	34.142	5.843	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-10/19/94	5	6.28	6.23	6.38	6.08	0.016	0.126	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	5	6.28	6.215	6.38	6.08	0.016	0.127	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-10/19/94	5	0.525	0.609	0.832	0.417	0.031	0.177	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	41	23.3	22.527	28.	2.9	21.954	4.686	15.56	21.1	25.65	26.7
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	34	6.55	6.747	11.	4.8	2.075	1.441	4.95	5.8	7.4	8.95
00400p	PH (STANDARD UNITS)	09/20/67-10/19/94	40	6.7	6.779	8.8	6.	0.235	0.485	6.208	6.5	7.	7.18
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	40	6.7	6.595	8.8	6.	0.27	0.52	6.208	6.5	7.	7.18
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	40	0.2	0.254	1.	0.002	0.057	0.238	0.067	0.1	0.316	0.62
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	31	105.	106.935	153.	56.	538.129	23.198	78.2	92.	124.	143.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	32	54.	49.906	110.	9.	615.314	24.806	18.5	30.	68.	84.9
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	30	58.5	58.6	136.	8.	619.076	24.881	28.4	44.	75.75	80.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	30	6.	9.95	76.	0.5	210.73	14.517	0.5	1.75	10.25	21.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	31	3.	4.532	22.	0.	21.682	4.656	0.5	1.	6.	10.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	30	2.	6.233	75.	0.	197.444	14.051	0.	0.5	6.	17.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	31 ##	0.05	0.051	0.12	0.005	0.001	0.027	0.01	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	31 ##	0.005	0.008	0.03	0.005	0.	0.006	0.005	0.005	0.01	0.018
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	27	0.14	0.152	0.49	0.005	0.013	0.113	0.025	0.05	0.22	0.294
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	31	0.5	0.563	1.199	0.2	0.064	0.254	0.3	0.4	0.8	0.98
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	27 ##	50.	90.741	300.	50.	4045.584	63.605	50.	50.	100.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	27 ##	1.699	1.884	2.477	1.699	0.057	0.24	1.699	1.699	2.	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			76.539								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	29	0.1	0.138	0.5	0.05	0.012	0.107	0.05	0.05	0.2	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	29	0.09	0.098	0.28	0.01	0.005	0.068	0.03	0.05	0.13	0.2

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	43	6.1	7.719	18.	0.	22.781	4.773	1.54	4.4	11.5	14.76
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	41	10.4	9.734	15.	4.	6.761	2.6	6.08	7.3	11.4	12.84
00400p	PH (STANDARD UNITS)	09/20/67-10/19/94	43	6.5	6.609	7.5	6.	0.081	0.284	6.3	6.5	6.8	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	43	6.5	6.525	7.5	6.	0.088	0.297	6.3	6.5	6.8	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	43	0.316	0.298	1.	0.032	0.037	0.193	0.1	0.158	0.316	0.501
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	41	97.	97.732	147.	1.	650.201	25.499	72.	82.5	115.	127.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	41	39.	40.878	76.	10.	290.91	17.056	18.6	29.5	50.	66.8
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	40	59.5	59.325	107.	9.	398.789	19.97	35.2	50.25	68.	86.5
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	40	4.	6.588	72.	0.	138.358	11.763	0.5	1.25	6.	14.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	40	2.	2.875	12.	0.	8.176	2.859	0.5	1.	4.	7.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	39	1.	4.026	63.	0.	108.762	10.429	0.	0.5	4.	7.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	40 ##	0.05	0.06	0.37	0.005	0.004	0.061	0.011	0.043	0.05	0.135
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	40 ##	0.005	0.007	0.01	0.005	0.	0.002	0.005	0.005	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	32	0.115	0.184	0.64	0.01	0.026	0.162	0.025	0.08	0.288	0.478
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	40	0.4	0.452	1.299	0.2	0.044	0.211	0.3	0.3	0.5	0.7
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	38 ##	50.	120.526	1500.	50.	600010.526	244.97	50.	50.	100.	220.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	38 ##	1.699	1.857	3.176	1.699	0.106	0.325	1.699	1.699	2.	2.331
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			72.027								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	38 ##	0.05	0.086	0.3	0.025	0.005	0.07	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	39	0.05	0.054	0.26	0.005	0.003	0.051	0.01	0.03	0.06	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-10/19/94	32	18.9	17.797	24.4	7.8	18.955	4.354	10.33	15.6	21.075	22.97
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	34	7.5	7.715	11.2	5.2	2.539	1.594	5.2	6.4	8.725	10.2
00400p	PH (STANDARD UNITS)	09/20/67-10/19/94	34	6.8	6.788	7.5	6.3	0.079	0.28	6.45	6.5	7.	7.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

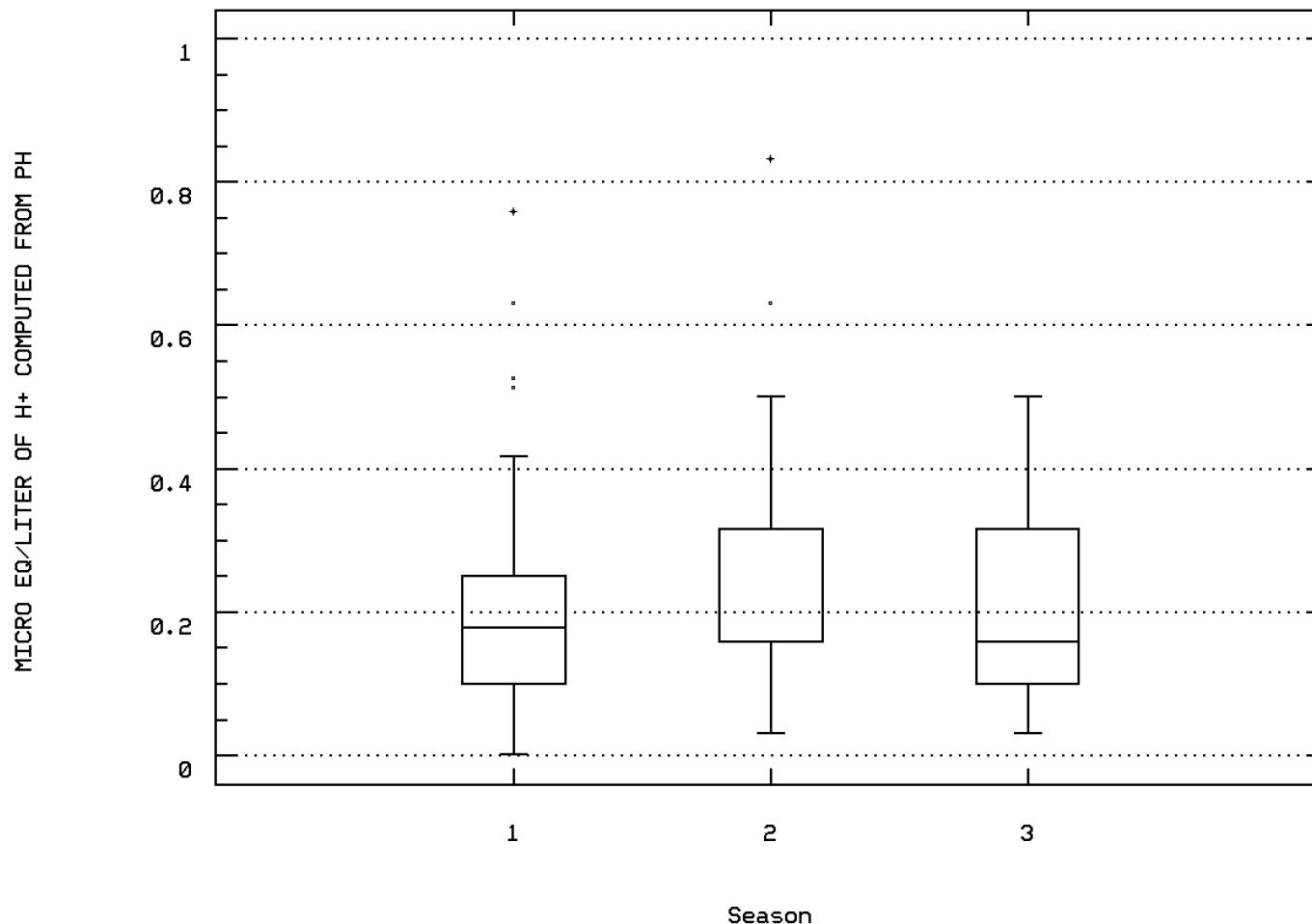
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-10/19/94	34	6.8	6.71	7.5	6.3	0.085	0.291	6.45	6.5	7.	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/19/94	34	0.158	0.195	0.501	0.032	0.013	0.113	0.1	0.1	0.316	0.357
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	33	88.	380.576	9700.	53.	2799354.064	1673.127	60.	72.	109.5	120.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	33	45.	45.545	86.	6.	301.568	17.366	24.6	35.	55.	69.2
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	33	42.	44.03	95.	14.	477.093	21.842	18.8	27.5	55.5	83.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	33	5.	12.803	116.	0.5	577.015	24.021	0.7	2.	12.	34.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	32	2.5	4.141	20.	0.5	17.778	4.216	0.65	1.	5.75	10.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	32	2.	9.094	115.	0.	552.717	23.51	0.	0.5	5.75	20.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	33 ##	0.05	0.061	0.2	0.01	0.001	0.038	0.044	0.05	0.05	0.132
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	33 ##	0.005	0.008	0.05	0.005	0.	0.008	0.005	0.005	0.01	0.016
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	26	0.11	0.129	0.34	0.005	0.012	0.109	0.017	0.025	0.235	0.303
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	33	0.6	0.67	1.399	0.3	0.066	0.258	0.4	0.5	0.8	1.079
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	28 ##	50.	317.857	6400.	50.	1427261.905	1194.681	50.	50.	100.	220.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	28 ##	1.699	1.935	3.806	1.699	0.204	0.451	1.699	1.699	2.	2.331
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	86.197								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	32 ##	0.05	0.095	0.3	0.025	0.005	0.072	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-06/14/79	32	0.05	0.08	0.27	0.01	0.003	0.055	0.03	0.05	0.1	0.167

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

Station: RICH0096 Parameter Code: 00400

MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 60 BRIDGE

## Station Inventory for Station: RICH0097

NPS Station ID: RICH0097  
 Location: JAMES RIVER, TERMINAL BOUY 175  
 Station Type: /TYPAB/AMBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080205  
 RF3 Index: 02080206139200.11  
 Description:  
 CHESAPEAKE BAY PROGRAM TISSUE AND SEDIMENT DATA ALL DATA FROM VIRGINIA STATE WATER CONTROL BOARD UNLESS OTHERWISE DESIGNATED  
 SPECIAL STUDY 70-040 DES LAB SHEETS 3657-3664,3666-3668,3671,3673,3676 APR-AUG 1971/BIOLOGICAL STUDY 75-010 DES LAB SHEET 33757,33770,33777,  
 33810,33817,33838,33845,33859,33913,33939,33946, APR-AUG 1975

LAT/LON: 37.515448/ -77.417476

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): XOL0950 /X320000 /Y4154000  
 Within Park Boundary: No

Date Created: 10/25/80

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 7.70

Distance from RF3: 0.30

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 0.10

## Parameter Inventory for Station: RICH0097

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00023	SAMPLE WEIGHT IN POUNDS	05/23/75-08/27/75	11	0.1	0.109	0.2	0.1	0.001	0.03	0.1	0.1	0.1	0.18
00024	SAMPLE LENGTH IN INCHES	05/23/75-08/27/75	11	5.2	5.318	6.5	4.3	0.49	0.7	4.34	4.8	6.	6.44
71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/26/71-04/27/71	13 ##	0.16	0.168	0.39	0.085	0.005	0.073	0.097	0.133	0.183	0.31
71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-04/27/71	14	0.125	0.126	0.33	0.04	0.006	0.076	0.045	0.068	0.158	0.26
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	25	1.85	4.971	41.	0.335	78.666	8.869	0.494	0.89	5.305	14.72
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	25	29.4	531.737	2510.	4.34	630112.802	793.796	4.628	5.65	905.5	2190.8
71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	25	102.	146.52	331.	56.	6866.76	82.866	69.	76.5	206.	272.
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/26/71-08/27/75	25	4.58	7.168	30.3	1.51	52.204	7.225	2.6	3.16	7.56	19.14
71940	CADMUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/26/71-08/27/75	25	1.86	2.519	7.55	0.5	4.112	2.028	0.614	1.048	3.348	6.45
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/26/71-08/27/75	25	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.
81665	VANADIUM IN FISH TISSUE WET WEIGHT MG/KG	05/23/75-08/27/75	11 ##	33.5	39.591	76.	10.	532.541	23.077	10.2	14.	61.5	74.6

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0098

NPS Station ID: RICH0098  
 Location: JAMES RIVER, ABOVE BAILEY BAY  
 Station Type: /TYPAB/AMBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080206  
 RF3 Index: 02080207110300.00  
 Description:  
 CHESAPEAKE BAY PROGRAM TISSUE AND SEDIMENT DATA ALL DATA FROM VIRGINIA STATE WATER CONTROL BOARD UNLESS OTHERWISE DESIGNATED  
 SPECIAL STUDY 70-040 DES LAB SHEETS 3966-3975,3977-3986 APR-AUG 1971/

LAT/LON: 37.515559/ -77.244448

Agency: 21VASWCB  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): XOA0947  
 Within Park Boundary: No

Date Created: 11/08/80

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 23.30

Distance from RF3: 0.07

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 0.00

## Parameter Inventory for Station: RICH0098

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71918	ARSENIC,TOTAL IN FISH,DRY WEIGHT BASIS	04/27/71-04/27/71	20 ##	0.135	0.13	0.3	0.03	0.007	0.086	0.031	0.051	0.18	0.282
71930	MERCURY,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	20	0.055	0.066	0.25	0.01	0.003	0.052	0.02	0.033	0.087	0.109
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	20	0.75	1.778	7.17	0.125	3.973	1.993	0.145	0.463	2.698	5.861
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	20	5.815	14.473	92.3	2.93	461.467	21.482	3.353	4.345	10.34	42.97
71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	20	88.8	83.47	147.	1.4	961.278	31.004	41.68	71.25	99.575	124.1
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	04/27/71-04/27/71	20	1.475	1.937	4.81	0.72	1.023	1.012	0.968	1.398	2.375	3.624
71940	CADMUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	04/27/71-04/27/71	20	0.68	0.777	2.89	0.19	0.468	0.684	0.23	0.25	1.073	1.782
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	04/27/71-04/27/71	20	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0099

NPS Station ID: RICH0099  
 Location: FONTELLA SPRING AT RICHMOND, VA  
 Station Type: /TYP/A/MBNT/SPRING  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080205  
 RF3 Index: 02080205000107.44  
 Description:

LAT/LON: 37.516670/ -77.461116

Agency: 112WRD  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 02037640  
 Within Park Boundary: No

Date Created: 03/31/84

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 7.97

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 3.40  
 Distance from RF3: 0.04

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0099

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/10/83-09/27/87	110	16.	15.973	20.5	11.5	5.848	2.418	12.5	13.875	18.	19.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/10/83-09/27/87	110	20.25	19.105	36.	-6.	91.886	9.586	6.5	12.25	27.125	30.
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/10/83-09/27/87	113	3.38	3.529	5.58	0.82	1.141	1.068	2.234	2.67	4.35	5.14
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/10/83-09/27/87	114	160.	157.14	175.	130.	44.617	6.68	150.	155.	160.	163.
00403	PH, LAB, STANDARD UNITS SU	10/17/83-10/17/83	1	5.7	5.7	5.7	5.7	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	10/17/83-10/17/83	1	5.7	5.7	5.7	5.7	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/17/83-10/17/83	1	1.995	1.995	1.995	1.995	0.	0.	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	10/17/83-10/17/83	1	5.5	5.5	5.5	5.5	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/17/83-10/17/83	1	6.4	6.4	6.4	6.4	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/17/83-10/17/83	1	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	10/17/83-10/17/83	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	10/17/83-10/17/83	1	2.3	2.3	2.3	2.3	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	10/17/83-10/17/83	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	10/17/83-10/17/83	1	4.	4.	4.	4.	0.	0.	**	**	**	**
01130	LITHIUM, DISSOLVED (UG/L AS LI)	10/17/83-10/17/83	1##	2.	2.	2.	2.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0099

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00			1	0	0.00						
		Other-Lo Lim.	6.5	1	1	1.00			1	1	1.00						
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	1	0	0.00			1	0	0.00						
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	1	0	0.00			1	0	0.00						
		Drinking Water	250.	1	0	0.00			1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00			1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1983 - Station RICH0099

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/10/83-09/27/87	15	18.	17.433	20.5	13.5	5.245	2.29	14.4	15.	19.5	20.2
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/10/83-09/27/87	15	22.	17.6	29.5	-6.	107.329	10.36	6.3	10.	26.5	29.2
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/10/83-09/27/87	15	2.45	2.945	4.84	1.92	1.103	1.05	1.926	2.	4.15	4.582
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/10/83-09/27/87	16	150.	151.5	165.	135.	59.733	7.729	138.5	148.5	155.	163.6

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0099

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/10/83-09/27/87	31	15.	15.452	19.	12.	5.889	2.427	12.1	13.	18.	18.5
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/10/83-09/27/87	31	18.	18.	33.5	0.	79.033	8.89	3.9	12.5	26.	29.6
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/10/83-09/27/87	33	4.06	3.963	5.33	2.17	1.293	1.137	2.514	2.88	5.18	5.232
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/10/83-09/27/87	33	160.	155.909	163.	130.	51.585	7.182	145.8	152.5	160.	162.6

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0099

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/10/83-09/27/87	20	16.	15.65	18.5	11.5	5.108	2.26	12.05	14.	17.875	18.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/10/83-09/27/87	20	23.75	21.35	36.	-2.5	118.397	10.881	4.55	15.5	29.625	32.9
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/10/83-09/27/87	21	4.05	3.873	5.58	2.58	0.627	0.792	2.626	3.26	4.225	4.986
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/10/83-09/27/87	21	160.	157.524	175.	145.	46.662	6.831	150.	151.5	160.	168.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0099

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/10/83-09/27/87	26	16.	16.135	19.5	13.	5.091	2.256	13.	14.	18.5	19.15
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/10/83-09/27/87	26	17.25	18.635	30.	2.	85.211	9.231	5.9	10.625	28.25	30.
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/10/83-09/27/87	26	3.445	3.49	5.1	2.13	1.008	1.004	2.407	2.568	4.48	5.045
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/10/83-09/27/87	26	160.	159.962	165.	151.	10.678	3.268	156.2	159.75	160.	165.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0099

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/10/83-09/27/87	18	15.25	15.778	19.	12.5	7.007	2.647	12.5	13.375	18.625	19.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/10/83-09/27/87	18	24.	20.444	31.	6.	91.261	9.553	6.45	8.5	28.5	31.
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/10/83-09/27/87	18	2.97	2.873	4.09	0.82	0.682	0.826	1.306	2.693	3.333	3.919
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/10/83-09/27/87	18	160.	159.889	168.	145.	22.928	4.788	154.	159.5	162.25	165.3

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0100

NPS Station ID: RICH0100

LAT/LON: 37.517503/ -77.209448

Location: CHICKAHOMINY RIV AT I64 NR WHITE OAK SWAMP, VA

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Depth of Water: 0

Major Basin:

Minor Basin:

RF1 Index: 02080206

RF1 Mile Point: 0.000

RF3 Index: 02080206161401.13

RF3 Mile Point: 1.12

Description:

Agency: 112WRD

FIPS State/County: 51087 VIRGINIA/HENRICO

STORET Station ID(s): 02042443

Within Park Boundary: No

Date Created: 01/09/88

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.50

Distance from RF3: 0.07

On/Off RF1:

On/Off RF3:

## Parameter Inventory for Station: RICH0100

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/15/85-09/12/89	9	22.	19.589	25.5	11.	32.134	5.669	11.	13.4	24.5	25.5
00020 TEMPERATURE, AIR (DEGREES CENTIGRADE)	04/08/87-09/12/89	5	21.	20.5	29.5	9.	60.	7.746	**	**	**	**
00025 BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/12/89	6	752.	755.333	767.	746.	73.867	8.595	**	**	**	**
00061 FLOW, STREAM, INSTANTANEOUS CFS	03/15/85-09/12/89	9	68.	114.111	270.	19.	9098.111	95.384	19.	43.5	221.5	270.
00080 COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	6	60.	75.167	120.	46.	988.167	31.435	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/15/85-09/12/89	9	132.	135.667	190.	109.	850.75	29.168	109.	110.	157.5	190.
00300 OXYGEN, DISSOLVED MG/L	04/08/87-04/05/89	5	7.5	7.38	10.	4.3	5.307	2.304	**	**	**	**
00400 PH (STANDARD UNITS)	04/08/87-09/12/89	6	6.3	6.467	7.3	6.	0.259	0.509	**	**	**	**
00400 CONVERTED PH (STANDARD UNITS)	04/08/87-09/12/89	6	6.255	6.285	7.3	6.	0.298	0.546	**	**	**	**
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/12/89	6	0.555	0.519	1.	0.05	0.155	0.393	**	**	**	**
00403 PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	6	7.3	7.217	7.7	6.5	0.182	0.426	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	04/08/87-09/12/89	6	7.289	7.022	7.7	6.5	0.227	0.477	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/12/89	6	0.051	0.095	0.316	0.02	0.013	0.112	**	**	**	**
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	04/08/87-09/12/89	6	0.02	0.025	0.04	0.02	0.	0.008	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/08/87-09/12/89	6	0.55	0.55	0.8	0.4	0.023	0.152	**	**	**	**
00631 NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	04/08/87-09/12/89	6	0.04	0.066	0.2	0.005	0.005	0.072	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	04/08/87-09/12/89	6	0.063	0.063	0.069	0.057	0.	0.004	**	**	**	**
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	6	0.027	0.032	0.062	0.016	0.	0.017	**	**	**	**
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/08/87-09/12/89	6	0.016	0.021	0.033	0.012	0.	0.01	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	04/08/87-09/12/89	6	8.45	9.683	14.	7.1	9.83	3.135	**	**	**	**
00915 CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	6	6.85	8.	15.	5.6	12.3	3.507	**	**	**	**
00925 MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	6	1.95	2.067	3.1	1.6	0.291	0.539	**	**	**	**
00930 SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	6	13.	13.167	16.	10.	6.567	2.563	**	**	**	**
00935 POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	6	2.	1.85	3.	0.8	0.735	0.857	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	6	14.5	15.833	23.	11.	20.167	4.491	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	6	18.5	22.667	52.	4.	267.067	16.342	**	**	**	**
00950 FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	6	0.1	0.117	0.2	0.1	0.002	0.041	**	**	**	**
00955 SILICA, DISSOLVED (MG/L AS SI02)	04/08/87-09/12/89	6	7.1	7.067	14.	1.4	24.763	4.976	**	**	**	**
01002 ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	4 ##	0.75	0.75	1.	0.5	0.083	0.289	**	**	**	**
01025 CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	2 ##	1.75	1.75	3.	0.5	3.125	1.768	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/12/89	4 ##	0.5	0.625	1.	0.5	0.063	0.25	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/12/89	4 ##	0.5	0.875	2.	0.5	0.563	0.75	**	**	**	**
01037 COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	4 ##	0.5	1.375	4.	0.5	3.063	1.75	**	**	**	**
01040 COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	2 ##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	4	2.	1.625	2.	0.5	0.563	0.75	**	**	**	**
01045 IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	6	1350.	1261.667	1900.	370.	249216.667	499.216	**	**	**	**
01046 IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	6	715.	683.333	1100.	280.	121386.667	348.406	**	**	**	**
01049 LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0100

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	4 ##	2.5	2.	2.5	0.5	1.	1.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	6	145.	598.333	2900.	70.	1274936.667	1129.131	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/12/89	5	120.	718.4	3200.	57.	1925320.3	1387.559	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/12/89	4	5.5	4.75	7.	1.	6.917	2.63	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	2	68.	68.	97.	39.	1682.	41.012	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	4	20.	20.	30.	10.	66.667	8.165	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	4	80.	76.75	86.	61.	118.917	10.905	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	4 ##	0.125	0.125	0.2	0.05	0.008	0.087	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	4	6.	5.5	8.	2.	7.	2.646	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0100

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	5	0	0.00	2	0	0.00	3	0	0.00						
00400	PH	Fresh Chronic	9.	6	0	0.00	3	0	0.00	3	0	0.00						
00403	PH, LAB	Other-Lo Lim.	6.5	6	4	0.67	3	2	0.67	3	2	0.67						
		Fresh Chronic	9.	6	0	0.00	3	0	0.00	3	0	0.00						
		Other-Lo Lim.	6.5	6	1	0.17	3	1	0.33	3	0	0.00						
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	6	0	0.00	3	0	0.00	3	0	0.00						
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	6	0	0.00	3	0	0.00	3	0	0.00						
		Drinking Water	250.	6	0	0.00	3	0	0.00	3	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	6	0	0.00	3	0	0.00	3	0	0.00						
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	6	0	0.00	3	0	0.00	3	0	0.00						
01002	ARSENIC, TOTAL	Fresh Acute	360.	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	50.	4	0	0.00	2	0	0.00	2	0	0.00						
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	5.	2	0	0.00	1	0	0.00	1	0	0.00						
01027	CADMIUM, TOTAL	Fresh Acute	3.9	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	5.	4	0	0.00	2	0	0.00	2	0	0.00						
01034	CHROMIUM, TOTAL	Drinking Water	100.	4	0	0.00	2	0	0.00	2	0	0.00						
01040	COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	1300.	2	0	0.00	1	0	0.00	1	0	0.00						
01042	COPPER, TOTAL	Fresh Acute	18.	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	1300.	4	0	0.00	2	0	0.00	2	0	0.00						
01049	LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	15.	2	0	0.00	1	0	0.00	1	0	0.00						
01051	LEAD, TOTAL	Fresh Acute	82.	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	15.	4	0	0.00	2	0	0.00	2	0	0.00						
01067	NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	100.	4	0	0.00	2	0	0.00	2	0	0.00						
01090	ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	5000.	2	0	0.00	1	0	0.00	1	0	0.00						
01092	ZINC, TOTAL	Fresh Acute	120.	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	5000.	4	0	0.00	2	0	0.00	2	0	0.00						
01147	SELENIUM, TOTAL	Fresh Acute	20.	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	50.	4	0	0.00	2	0	0.00	2	0	0.00						
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00						
71900	MERCURY, TOTAL	Fresh Acute	2.4	4	0	0.00	2	0	0.00	2	0	0.00						
		Drinking Water	2.	4	0	0.00	2	0	0.00	2	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0101

NPS Station ID: RICH0101  
 Location: FOREST HILL AVENUE BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080205006400.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: REEDY CREEK SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.517503/ -77.472226

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-RDD000.76 /VA2-08-X0207/VA2-4X0207  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.19

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.03

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0101

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	184	15.	14.871	29.	0.	47.249	6.874	5.45	9.425	20.5	23.4
00061 FLOW, STREAM, INSTANTANEOUS CFS	04/21/82-04/22/85	18	0.75	2.806	21.	0.1	23.585	4.856	0.1	0.5	3.25	7.5
00070 TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-06/20/90	15	7.8	16.067	120.	1.8	870.784	29.509	1.92	2.9	13.5	61.8
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	106	192.	186.585	394.	70.	2192.778	46.827	125.8	159.5	214.5	235.3
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/27/89-06/20/90	7	177.	173.	189.	154.	184.333	13.577	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	184	9.4	9.574	14.8	1.	4.992	2.234	6.95	8.	11.175	12.6
00310 BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	113	2.	2.907	25.	0.5	12.36	3.516	1.	1.	3.	5.
00340 COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	113	21.	21.717	63.	4.	121.508	11.023	9.	14.	28.	33.6
00400 PH (STANDARD UNITS)	09/26/72-06/20/90	184	7.3	7.26	9.09	4.	0.463	0.681	6.5	6.855	7.615	8.
00400 CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	184	7.3	5.943	9.09	4.	2.207	1.486	6.5	6.855	7.615	8.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	184	0.05	1.141	100.	0.001	96.783	9.838	0.01	0.024	0.14	0.316
00403 PH, LAB, STANDARD UNITS SU	06/02/74-06/20/90	19	7.	7.074	7.9	6.5	0.159	0.398	6.6	6.8	7.3	7.8
00403 CONVERTED PH, LAB, STANDARD UNITS	06/02/74-06/20/90	19	7.	6.934	7.9	6.5	0.179	0.424	6.6	6.8	7.3	7.8
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/02/74-06/20/90	19	0.1	0.117	0.316	0.013	0.007	0.084	0.016	0.05	0.158	0.251
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	06/02/74-06/20/90	21	32.	36.857	159.	9.	930.829	30.509	11.8	20.5	43.5	49.8
00500 RESIDUE, TOTAL (MG/L)	09/26/72-06/20/90	78	136.	176.692	1155.	11.	26768.891	163.612	105.9	121.75	162.	272.5
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/20/90	79	43.	52.633	155.	4.	860.928	29.342	24.	31.	69.	96.
00510 RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/20/90	79	89.	125.063	1082.	3.	22411.778	149.706	60.	73.	119.	205.
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	175	6.	20.52	560.	0.	2807.722	52.988	0.8	2.5	15.	45.4
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	174	2.5	5.267	90.	0.	99.701	9.985	0.5	2.	5.	12.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	176	3.	15.92	480.	0.	2044.862	45.22	0.5	2.5	9.	32.4
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	173 ##	0.05	0.107	1.4	0.02	0.022	0.148	0.05	0.05	0.1	0.2
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	172	0.02	0.024	0.32	0.005	0.001	0.034	0.005	0.01	0.03	0.05
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	156	0.68	0.68	1.5	0.01	0.08	0.282	0.307	0.49	0.88	1.029
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	170	0.5	0.561	5.	0.05	0.213	0.461	0.3	0.3	0.625	0.9
00630 NITRITE PLUS NITRATE, TOTAL 1 DET, (MG/L AS N)	06/17/77-06/07/79	16	0.7	0.723	1.1	0.48	0.031	0.176	0.494	0.6	0.875	1.03
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	107	0.1	0.106	0.7	0.05	0.008	0.089	0.05	0.05	0.1	0.2
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	110	0.05	0.062	0.47	0.01	0.004	0.062	0.02	0.03	0.07	0.129
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	107	8.7	10.117	31.	1.	36.821	6.068	4.	6.	14.	17.4
00900 HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-06/20/90	15	48.	46.933	62.	18.	155.924	12.487	25.2	40.	56.	62.
00940 CHLORIDE, TOTAL IN WATER MG/L	10/24/88-06/20/90	15	19.	18.2	30.	2.	48.171	6.941	7.4	16.	20.	30.
00945 SULFATE, TOTAL (MG/L AS SO4)	11/29/88-06/20/90	14	14.5	15.143	25.	8.	17.055	4.13	9.5	13	17.5	22.
00951 FLUORIDE, TOTAL (MG/L AS F)	11/29/88-06/20/90	14	0.29	0.357	0.9	0.1	0.049	0.222	0.135	0.215	0.4	0.825

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## Parameter Inventory for Station: RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00955	SILICA, DISSOLVED (MG/L AS SI02)	04/19/89-06/20/90	12	13.3	13.183	15.9	8.6	6.272	2.504	8.75	11.4	15.55	15.87
01002	ARSENIC, TOTAL (UG/L AS AS)	11/18/75-03/28/85	8 ##	1.25	2.188	7.	1.	4.281	2.069	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-05/06/81	3	1.2	1.397	2.5	0.49	1.039	1.019	**	**	**	**
01027	CADMUM, TOTAL (UG/L AS CD)	11/18/75-03/28/85	8 ##	5.	3.875	5.	0.5	4.339	2.083	**	**	**	**
01028	CADMUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	3	0.13	0.13	0.2	0.06	0.005	0.07	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	3	2.8	3.037	4.49	1.82	1.824	1.351	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	10/26/72-03/28/85	14 ##	5.	5.036	10.	0.5	3.479	1.865	2.75	5.	5.	7.5
01042	COPPER, TOTAL (UG/L AS CU)	10/26/72-03/28/85	13 ##	5.	6.154	10.	5.	4.808	2.193	5.	5.	7.5	10.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-05/06/81	3	2.6	2.517	3.5	1.45	1.056	1.028	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/01/78-11/01/78	1	300.	300.	300.	300.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	10/26/72-03/28/85	14	12.	18.036	53.	0.5	275.402	16.595	2.75	6.5	25.	53.
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-05/06/81	3	3.9	12.767	33.8	0.6	334.523	18.29	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/01/78-11/01/78	1	40.	40.	40.	40.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/01/78	9 ##	50.	40.	50.	5.	393.75	19.843	5.	27.5	50.	50.
01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2 ##	5.	5.	5.	0.	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-05/06/81	3	2.	3.913	8.44	1.3	15.491	3.936	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	10/26/72-03/28/85	14	40.	40.357	90.	5.	494.093	22.228	12.5	20.	52.5	75.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-05/06/81	3	21.6	27.4	40.	20.6	119.32	10.923	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	175	900.	2223.406	16000.	46.	10340920.38	3215.73	88.	300.	2700.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	175	2.954	2.924	4.204	1.663	0.458	0.677	1.938	2.477	3.431	3.778
	GEOMETRIC MEAN =				838.516								
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39305	O,P'DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310	P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39315	O,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-05/18/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/18/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-08/22/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	63 ##	0.05	0.103	0.7	0.05	0.01	0.1	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/07/79	62	0.05	0.063	0.2	0.005	0.002	0.043	0.02	0.04	0.08	0.124
71900	MERCURY, TOTAL (UG/L AS HG)	10/26/72-03/28/85	14 ##	0.25	0.4	2.5	0.15	0.367	0.606	0.15	0.25	0.25	1.4
71921	MERCURY, TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-05/06/81	3 ##	0.025	0.048	0.1	0.02	0.002	0.045	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0101

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	15	1	0.07	3	0	0.00	5	1	0.20	7	0	0.00		
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	184	1	0.01	47	0	0.00	75	1	0.01	62	0	0.00		
00400	PH	Fresh Chronic	9.	184	2	0.01	47	0	0.00	74	0	0.00	63	2	0.03		
00403	PH, LAB	Other-Lo Lim.	6.5	183 &	21	0.11	46	2	0.04	74	9	0.12	63	10	0.16		
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	172	0	0.00	43	0	0.00	71	0	0.00	58	0	0.00		
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	156	0	0.00	39	0	0.00	67	0	0.00	50	0	0.00		
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	16	0	0.00	4	0	0.00	4	0	0.00	8	0	0.00		
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	15	0	0.00	1	0	0.00	7	0	0.00	7	0	0.00		
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	15	0	0.00	1	0	0.00	7	0	0.00	7	0	0.00		
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	14	0	0.00	2	0	0.00	5	0	0.00	7	0	0.00		
01002	ARSENIC, TOTAL	Fresh Acute	360.	8	0	0.00				3	0	0.00	5	0	0.00		
01027	CADMIUM, TOTAL	Drinking Water	50.	8	0	0.00				3	0	0.00	5	0	0.00		
01034	CHROMIUM, TOTAL	Fresh Acute	3.9	2 &	0	0.00							2	0	0.00		
01042	COPPER, TOTAL	Drinking Water	5.	2 &	0	0.00							2	0	0.00		
01051	LEAD, TOTAL	Drinking Water	100.	14	0	0.00				7	0	0.00	7	0	0.00		
01065	NICKEL, DISSOLVED	Fresh Acute	18.	13	0	0.00				6	0	0.00	7	0	0.00		
01067	NICKEL, TOTAL	Drinking Water	1300.	13	0	0.00				6	0	0.00	7	0	0.00		
01092	ZINC, TOTAL	Fresh Acute	82.	14	0	0.00				7	0	0.00	7	0	0.00		
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Drinking Water	15.	14	6	0.43				7	2	0.29	7	4	0.57		
34356	ENDOSULFAN, BETA, TOTAL	Fresh Acute	1400.	9	0	0.00				5	0	0.00	4	0	0.00		
34361	ENDOSULFAN, ALPHA, TOTAL	Drinking Water	100.	9	0	0.00				5	0	0.00	4	0	0.00		
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
39300	P,P' DDT IN WHOLE WATER SAMPLE	Drinking Water	1.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
39310	P,P'DDD IN WHOLE WATER SAMPLE	Fresh Acute	1.1	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
39320	P,P'DDE IN WHOLE WATER SAMPLE	Fresh Acute	0.6	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	1050.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
39340	GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	3.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
		Drinking Water	2.	1	0	0.00							1	0	0.00		
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00					
39380	DIELDRIN IN WHOLE WATER SAMPLE	Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
39390	ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
39400	TOXAPHENE IN WHOLE WATER SAMPLE	Drinking Water	0.18	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00		
		Fresh Acute	0.73	1	0	0.00				1	0	0.00		1	0	0.00	
		Drinking Water	3.	1	0	0.00							1	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0101

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
	Drinking Water	0.4	1	0	0.00							1	0	0.00			
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
	Drinking Water	0.2	1	0	0.00							1	0	0.00			
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00						
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00						
	Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00						
39730 2,4-D IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00							1	0	0.00			
39760 SILVEX IN WHOLE WATER SAMPLE	Drinking Water	50.	1	0	0.00							1	0	0.00			
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00									
71900 MERCURY, TOTAL	Fresh Acute	2.4	13 &	0	0.00				6	0	0.00	7	0	0.00			
	Drinking Water	2.	13 &	0	0.00				6	0	0.00	7	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1972 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	4	10.55	12.225	22.2	5.6	51.482	7.175	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	4	10.2	9.8	11.	7.8	1.947	1.395	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	4	7.	7.175	8.	6.7	0.323	0.568	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	4	7.	6.99	8.	6.7	0.368	0.607	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/20/90	4	0.1	0.102	0.2	0.01	0.006	0.077	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	4	4.	6.25	16.	1.	44.917	6.702	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	4	1.5	2.	4.	1.	2.	1.414	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	4	1.5	4.25	14.	0.	42.917	6.551	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	2	0.16	0.16	0.22	0.1	0.007	0.085	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	2	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	2	0.68	0.68	0.78	0.58	0.02	0.141	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	2	0.65	0.65	0.7	0.6	0.005	0.071	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	4	500.	900.	2300.	300.	880000.	938.083	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	4	2.699	2.809	3.362	2.477	0.147	0.383	**	**	**	**
				GEOMETRIC MEAN =		644.462							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	8	14.45	15.225	25.6	6.7	29.494	5.431	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	8	8.4	8.675	11.6	6.	3.405	1.845	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	8	7.	7.013	7.4	6.7	0.05	0.223	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	8	7.	6.965	7.4	6.7	0.052	0.229	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/20/90	8	0.1	0.108	0.2	0.04	0.003	0.052	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	14.5	17.75	59.	2.	342.786	18.514	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	7	4.	5.714	16.	0.	35.571	5.964	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	4.5	12.75	55.	1.	327.357	18.093	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	8 ##	0.05	0.09	0.3	0.05	0.008	0.087	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8 ##	0.008	0.009	0.02	0.005	0.	0.005	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.52	0.521	1.179	0.01	0.117	0.341	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	8	0.7	0.775	1.399	0.1	0.167	0.409	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	8	850.	1362.5	6000.	50.	3836250.	1958.635	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	8	2.929	2.707	3.778	1.699	0.551	0.742	**	**	**	**
				GEOMETRIC MEAN =		509.43							

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	10	15.25	15.28	22.8	5.6	34.295	5.856	5.93	10.55	21.	22.74
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	10	9.5	9.86	14.	7.8	3.414	1.848	7.82	8.45	11.	13.7
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	10	7.	6.9	7.4	6.5	0.071	0.267	6.5	6.725	7.	7.36
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	10	7.	6.827	7.4	6.5	0.077	0.278	6.5	6.725	7.	7.36
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/20/90	10	0.1	0.149	0.316	0.04	0.009	0.094	0.046	0.1	0.198	0.316
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	6.	34.	142.	0.	2845.111	53.34	0.	1.5	66.75	139.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	1.5	12.1	90.	0.	775.878	27.855	0.	0.	10.75	82.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	5.	21.9	126.	0.	1523.656	39.034	0.	0.75	32.5	117.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	10 ##	0.05	0.08	0.3	0.05	0.006	0.079	0.05	0.05	0.063	0.28
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10 ##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.019
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.54	0.544	1.	0.04	0.093	0.305	0.061	0.258	0.82	0.988
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	10	0.45	0.49	0.8	0.3	0.032	0.179	0.3	0.3	0.625	0.79

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	10	550.	1615.	6000.	50.	5572250.	2360.561	55.	175.	2226.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	10	2.739	2.747	3.778	1.699	0.494	0.703	1.729	2.226	3.367	3.778
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	558.212								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	12	13.3	14.517	24.4	4.4	37.531	6.126	5.24	9.825	19.725	23.74
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	13	8.4	9.269	12.6	6.6	3.736	1.933	7.	8.	10.9	12.6
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	13	7.	6.992	7.5	6.	0.312	0.559	6.	6.55	7.5	7.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	13	7.	6.626	7.5	6.	0.458	0.677	6.	6.55	7.5	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	13	0.1	0.237	1.	0.032	0.123	0.35	0.032	0.032	0.284	1.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	8.	25.6	110.	0.	1350.044	36.743	0.	4.5	36.5	106.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	5.	8.2	20.	0.	51.067	7.146	0.	3.	14.5	19.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	4.	17.4	96.	0.	1069.378	32.701	0.	1.5	17.5	92.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	11	0.1	0.109	0.2	0.05	0.004	0.063	0.05	0.05	0.2	0.2
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.02	0.022	0.08	0.005	0.001	0.023	0.005	0.005	0.025	0.076
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.64	0.637	0.92	0.31	0.044	0.209	0.311	0.5	0.81	0.918
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	11	0.4	0.482	1.199	0.1	0.077	0.278	0.14	0.4	0.5	1.099
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	11	100.	1150.	6000.	50.	3431000.	1852.296	50.	50.	2000.	5340.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	11	2.	2.469	3.778	1.699	0.614	0.784	1.699	1.699	3.301	3.709
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	294.736								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	12	16.35	15.825	25.6	5.6	51.008	7.142	5.93	8.2	23.025	24.91
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	12	9.15	9.292	13.	5.8	4.695	2.167	6.19	7.65	11.225	12.64
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	12	7.5	7.458	8.	6.7	0.09	0.3	6.88	7.35	7.5	7.91
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	12	7.5	7.338	8.	6.7	0.106	0.325	6.88	7.35	7.5	7.91
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	12	0.032	0.046	0.2	0.01	0.002	0.05	0.013	0.032	0.045	0.155
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	12	9.	41.208	164.	0.5	3837.112	61.944	0.5	1.625	84.5	161.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	12	4.	5.958	22.	0.5	43.884	6.625	0.5	0.875	7.5	20.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	12	4.	35.375	148.	0.5	3209.915	56.656	0.5	0.625	82.	143.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	12##	0.075	0.192	0.6	0.05	0.041	0.203	0.05	0.05	0.375	0.57
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	12	0.02	0.023	0.05	0.005	0.	0.019	0.005	0.005	0.04	0.05
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	12	0.58	0.579	1.	0.26	0.042	0.206	0.269	0.438	0.688	0.94
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	12	0.65	0.629	1.399	0.05	0.142	0.377	0.125	0.325	0.85	1.309
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	12	700.	1558.333	6000.	100.	4589924.242	2142.411	100.	225.	1800.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	12	2.845	2.838	3.778	2.	0.354	0.595	2.	2.345	3.246	3.778
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	688.926								

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### Annual Analysis for 1977 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	8	8.	10.813	28.	1.2	99.201	9.96	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	8	7.85	7.6	13.	1.	13.111	3.621	**	**	**	**

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### Annual Analysis for 1977 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	8	7.5	7.588	8.5	7.	0.213	0.461	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	8	7.5	7.429	8.5	7.	0.241	0.491	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/20/90	8	0.032	0.037	0.1	0.003	0.001	0.03	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	7	10.	21.357	104.	0.5	1352.393	36.775	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	7	2.	3.5	13.	0.	21.417	4.628	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	7	8.	17.929	91.	0.5	1048.536	32.381	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.1	0.175	0.4	0.05	0.019	0.136	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.02	0.046	0.15	0.01	0.003	0.054	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	4	0.565	0.523	0.59	0.37	0.011	0.103	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	8	0.6	1.088	5.	0.1	2.567	1.602	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	6	4000.	3358.333	6000.	50.	8868416.667	2977.989	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	6	3.54	3.056	3.778	1.699	0.916	0.957	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =		1136.952							

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### Annual Analysis for 1978 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	9	17.	18.278	29.	10.5	36.444	6.037	10.5	14.	23.5	29.
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	9	7.4	7.689	10.5	5.5	2.736	1.654	5.5	6.2	8.9	10.5
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	9	7.5	7.311	8.5	6.5	0.371	0.609	6.5	6.75	7.5	8.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	9	7.5	6.994	8.5	6.5	0.484	0.696	6.5	6.75	7.5	8.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/20/90	9	0.032	0.101	0.316	0.003	0.016	0.125	0.003	0.032	0.208	0.316
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	7	6.	84.857	560.	0.5	43938.726	209.616	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	2.	12.375	80.	0.	757.339	27.52	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	2.5	62.625	480.	0.5	28448.482	168.667	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	8 ##	0.075	0.263	1.4	0.05	0.216	0.464	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.03	0.04	0.11	0.005	0.002	0.042	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	8	0.5	0.588	1.7	0.1	0.256	0.506	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	8	700.	1800.	8000.	50.	7942142.857	2818.181	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	8	2.845	2.717	3.903	1.699	0.641	0.8	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =		521.707							

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### Annual Analysis for 1979 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	9	12.5	14.278	22.	4.	38.257	6.185	4.	9.75	20.	22.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	5	154.	164.8	235.	110.	2185.7	46.751	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	9	10.2	10.033	13.3	8.	2.968	1.723	8.	8.55	11.2	13.3
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	5	2.	2.6	5.	2.	1.8	1.342	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	5	34.	34.2	55.	16.	209.7	14.481	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	9	7.5	7.433	8.3	6.9	0.158	0.397	6.9	7.15	7.5	8.3
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	9	7.5	7.304	8.3	6.9	0.176	0.42	6.9	7.15	7.5	8.3
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/26/72-06/20/90	9	0.032	0.05	0.126	0.005	0.001	0.038	0.005	0.032	0.075	0.126
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	9	10.	8.889	27.	0.5	67.799	8.234	0.5	1.75	12.	27.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	9	3.	2.889	5.	0.5	3.049	1.746	0.5	1.25	4.5	5.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	9	6.	6.389	22.	0.5	46.674	6.832	0.5	0.75	9.	22.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	9 ##	0.05	0.056	0.1	0.05	0.017	0.017	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	9	0.01	0.011	0.03	0.005	0.	0.009	0.005	0.005	0.015	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	5	0.5	0.488	0.8	0.24	0.052	0.227	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	9	0.3	0.356	0.6	0.3	0.01	0.101	0.3	0.3	0.4	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5	0.1	0.14	0.2	0.1	0.003	0.055	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.1	0.104	0.15	0.06	0.002	0.04	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	5	16.	16.2	27.	10.	45.7	6.76	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	9	1100.	2083.333	7100.	50.	4943750.	2223.455	50.	450.	3250.	7100.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	9	3.041	3.011	3.851	1.699	0.443	0.666	1.699	2.573	3.511	3.851
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	1026.272								

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### Annual Analysis for 1980 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	11	16.	14.409	27.5	2.5	63.591	7.974	3.4	8.	19.	27.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	181.5	170.6	225.	87.	2254.489	47.481	88.3	138.25	208.	224.5
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	11	8.8	9.282	12.8	6.6	4.16	2.04	6.68	7.7	11.2	12.62
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	10	3.	4.	13.	2.	11.111	3.333	2.	2.	4.25	12.2
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	10	25.5	27.1	58.	13.	173.878	13.186	13.2	18.	32.	56.
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	11	7.	7.064	7.6	6.5	0.143	0.378	6.54	6.7	7.5	7.58
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	11	7.	6.929	7.6	6.5	0.162	0.403	6.54	6.7	7.5	7.58
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	11	0.1	0.118	0.316	0.025	0.008	0.091	0.026	0.032	0.2	0.293
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	11.	17.7	59.	2.5	360.122	18.977	2.5	2.5	32.25	56.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	2.75	5.2	16.	1.	21.178	4.602	1.15	2.5	8.25	15.3
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	9.	13.5	51.	2.5	235.278	15.339	2.5	2.5	18.	48.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	10##	0.05	0.075	0.2	0.05	0.002	0.049	0.05	0.05	0.1	0.19
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.015	0.021	0.05	0.005	0.	0.016	0.005	0.005	0.033	0.049
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.6	0.633	1.1	0.27	0.066	0.256	0.275	0.41	0.825	1.08
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	10	0.4	0.49	0.9	0.2	0.059	0.242	0.21	0.3	0.675	0.9
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	0.1	0.15	0.4	0.05	0.015	0.122	0.05	0.05	0.225	0.39
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.07	0.09	0.19	0.03	0.003	0.058	0.031	0.048	0.13	0.19
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	14.5	16.3	28.	8.	53.789	7.334	8.	9.5	23.	27.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	10	1450.	3105.	8000.	50.	12194694.444	3492.09	55.	100.	7550.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	10	3.07	2.961	3.903	1.699	0.767	0.876	1.729	2.	3.878	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	915.089								

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### Annual Analysis for 1981 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	11	14.	14.636	26.	3.	60.905	7.804	3.4	6.	21.5	25.4
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	185.	196.727	268.	162.	859.818	29.323	164.8	177.	206.	259.8
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	11	8.4	8.773	13.	4.6	6.36	2.522	5.02	6.9	11.	12.86
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	11	3.	4.727	25.	1.	49.018	7.001	1.	1.	3.	21.6
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	11	22.	26.182	63.	13.	214.364	14.641	13.2	14.	33.	57.4
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	11	7.5	7.527	8.5	7.	0.19	0.436	7.04	7.2	7.8	8.4
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	11	7.5	7.382	8.5	7.	0.213	0.462	7.04	7.2	7.8	8.4
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	11	0.032	0.042	0.1	0.003	0.001	0.029	0.005	0.016	0.063	0.093
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	11	5.	6.955	17.	2.5	27.123	5.208	2.5	2.5	12.	16.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	11	2.5	3.318	11.	1.	8.014	2.831	1.2	2.	2.5	10.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	11	4.	4.773	11.	2.5	7.468	2.733	2.5	2.5	6.	10.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	11##	0.05	0.1	0.5	0.05	0.018	0.134	0.05	0.05	0.1	0.42
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	11	0.01	0.019	0.06	0.005	0.	0.019	0.005	0.005	0.02	0.058
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	11	0.46	0.494	1.	0.025	0.085	0.291	0.034	0.35	0.7	0.96
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	11	0.4	0.5	1.2	0.2	0.08	0.283	0.2	0.3	0.6	1.1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.105	0.2	0.05	0.003	0.052	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.06	0.066	0.2	0.02	0.002	0.048	0.022	0.04	0.07	0.176

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	14.	13.727	31.	6.	49.418	7.03	6.	8.	17.	28.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	11	800.	1663.636	5200.	100.	2608545.455	1615.099	160.	500.	3000.	4860
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	11	2.903	3.007	3.716	2.	0.245	0.495	2.12	2.699	3.477	3.682
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	1015.465								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	11	14.	14.136	26.	0.5	54.905	7.41	1.6	10.	21.	25.2
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	207.	200.455	236.	147.	594.273	24.378	151.6	193.	216.	232.8
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	11	9.1	9.164	14.4	5.5	6.451	2.54	5.68	7.2	10.6	13.82
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	11	2.	2.182	4.	1.	1.164	1.079	1.	1.	3.	3.8
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	11	23.	19.455	29.	7.	77.073	8.779	7.2	9.	27.	28.8
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	11	6.9	6.627	7.3	4.	0.848	0.921	4.46	6.5	7.	7.3
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	11	6.9	5.034	7.3	4.	3.64	1.908	4.46	6.5	7.	7.3
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	11	0.126	9.242	100.	0.05	906.092	30.101	0.05	0.1	0.316	80.1
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	11	8.	9.545	28.	2.5	65.973	8.122	2.5	2.5	14.	26.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	11	3.	3.909	9.	2.	4.591	2.143	2.1	2.5	5.	8.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	11	3.	6.545	26.	2.	57.373	7.574	2.1	2.5	9.	23.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	11 ##	0.05	0.073	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	11	0.02	0.043	0.32	0.005	0.008	0.092	0.005	0.01	0.02	0.26
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	11	0.78	0.782	1.42	0.06	0.154	0.392	0.122	0.6	0.92	1.412
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	11	0.4	0.395	0.7	0.2	0.025	0.159	0.2	0.3	0.5	0.68
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.086	0.2	0.05	0.002	0.045	0.05	0.05	0.1	0.18
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.04	0.043	0.08	0.02	0.	0.016	0.022	0.03	0.05	0.074
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	8.	6.909	13.	1.	12.291	3.506	1.4	4.	10.	12.4
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	11	500.	800.	2000.	200.	364000.	603.324	220.	400.	1100.	1960.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	11	2.699	2.799	3.301	2.301	0.099	0.315	2.336	2.602	3.041	3.292
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	628.859								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	10	12.25	13.	27.	0.	69.278	8.323	0.6	6.75	21.125	26.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	10	185.5	173.3	208.	88.	1201.567	34.664	94.6	159.25	195.	207.
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	10	11.4	11.01	14.3	7.8	4.808	2.193	7.81	8.725	12.6	14.19
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	9	2.	2.222	3.	1.	0.444	0.667	1.	2.	3.	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	10	23.	21.5	35.	10.	82.944	9.107	10.	11.5	29.	34.7
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	9	6.7	7.011	8.5	6.3	0.479	0.692	6.3	6.5	7.45	8.5
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	9	6.7	6.722	8.5	6.3	0.573	0.757	6.3	6.5	7.45	8.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	9	0.2	0.19	0.501	0.003	0.027	0.166	0.003	0.036	0.316	0.501
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	6.5	10.15	33.	2.5	94.725	9.733	2.5	2.5	14.	31.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	3.	3.95	7.	2.5	2.747	1.657	2.5	2.5	5.25	6.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	10	2.75	6.95	28.	0.	73.747	8.588	0.2	2.375	10.5	26.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	10 ##	0.05	0.075	0.2	0.05	0.002	0.049	0.05	0.05	0.1	0.19
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.01	0.013	0.02	0.005	0.	0.006	0.005	0.009	0.02	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.985	0.884	1.5	0.34	0.127	0.357	0.354	0.533	1.1	1.46
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	10	0.55	0.57	0.9	0.2	0.045	0.211	0.22	0.4	0.725	0.89
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10 ##	0.075	0.075	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.025	0.036	0.08	0.02	0.	0.021	0.02	0.02	0.053	0.078
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	10	11.5	10.8	16.	4.	21.511	4.638	4.1	5.75	15.25	16.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	10	1850.	2005.	4800.	50.	2575805.556	1604.932	55.	550.	3100.	4750.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	10	3.263	3.033	3.681	1.699	0.45	0.671	1.729	2.634	3.482	3.676
				GEOMETRIC MEAN =		1080.188							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	8	20.75	18.	22.	9.5	29.714	5.451	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	8	170.5	161.375	233.	70.	4178.839	64.644	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	8	9.55	9.738	13.5	6.7	4.397	2.097	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	8	2.5	4.625	19.	1.	35.696	5.975	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	8	23.5	22.75	32.	8.	82.786	9.099	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	8	6.82	6.769	7.7	6.1	0.302	0.549	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	8	6.82	6.521	7.7	6.1	0.372	0.61	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	8	0.152	0.301	0.794	0.02	0.088	0.296	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	22.5	34.063	146.	2.5	2115.46	45.994	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	7.5	8.563	20.	2.5	29.388	5.421	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	15.	25.813	126.	2.	1678.853	40.974	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	8##	0.05	0.069	0.2	0.05	0.003	0.053	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.015	0.017	0.05	0.005	0.	0.015	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.59	0.654	1.	0.3	0.069	0.263	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	8	0.45	0.544	0.9	0.4	0.044	0.209	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	8##	0.075	0.188	0.7	0.05	0.051	0.226	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	8	0.065	0.149	0.47	0.02	0.027	0.163	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	8	14.	13.75	28.	4.	57.357	7.573	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	8	1150.	2237.5	8000.	100.	6865535.714	2620.217	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	8	3.057	3.062	3.903	2.	0.35	0.591	**	**	**	**
				GEOMETRIC MEAN =		1153.99							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	11	15.	14.591	24.5	1.1	48.333	6.952	2.08	11.4	19.	24.3
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	186.	204.455	394.	135.	4852.473	69.66	135.8	168.	218.	360.4
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	11	10.4	10.273	13.6	8.2	3.48	1.866	8.2	8.4	12.	13.34
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	11	1.	1.318	3.	0.5	0.514	0.717	0.6	1.	2.	2.8
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	11	14.	16.909	36.	8.	80.091	8.949	8.	8.	24.	34.2
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	11	6.8	6.825	7.8	6.1	0.251	0.501	6.12	6.5	7.2	7.7
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	11	6.8	6.604	7.8	6.1	0.305	0.553	6.12	6.5	7.2	7.7
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	11	0.158	0.249	0.794	0.016	0.063	0.25	0.023	0.063	0.316	0.762
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	11##	2.5	3.227	8.	2.5	3.068	1.752	2.5	2.5	2.5	7.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	11##	2.5	2.682	4.	2.5	0.214	0.462	2.5	2.5	2.5	3.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	11##	2.5	2.591	4.	2.	0.241	0.491	2.1	2.5	2.5	3.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	9##	0.05	0.056	0.1	0.05	0.	0.017	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	9	0.01	0.011	0.02	0.005	0.	0.005	0.005	0.008	0.015	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	9	0.79	0.769	1.05	0.44	0.046	0.215	0.44	0.56	0.97	1.05
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	6	0.45	0.4	0.5	0.2	0.016	0.126	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	6##	0.05	0.05	0.05	0.05	0.	0	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	9	0.03	0.029	0.05	0.01	0.	0.014	0.01	0.02	0.04	0.05
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	11	6.	9.	20.	2.	33.8	5.814	2.4	5.	15.	19.4
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	11	500.	831.818	2200.	50.	626136.364	791.288	60.	200.	1900.	2140.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	11	2.699	2.682	3.342	1.699	0.285	0.534	1.759	2.301	3.279	3.33
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		481.382							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	12	12.25	14.408	25.	6.	37.123	6.093	6.9	9.25	19.95	23.65
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	12	209.5	208.75	287.	115.	2281.841	47.769	125.5	178.	247.	276.2
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	12	10.6	9.908	12.3	6.	3.775	1.943	6.54	8.2	11.475	12.09
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	12	1.	1.708	7.	0.5	3.203	1.79	0.65	1.	1.75	5.8
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	12	14.5	17.917	33.	6.	92.447	9.615	6.9	10.	28.75	32.7
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	12	7.69	7.36	7.95	6.2	0.385	0.621	6.326	6.7	7.825	7.941
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	12	7.687	6.928	7.95	6.2	0.589	0.768	6.326	6.7	7.825	7.941
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	12	0.021	0.118	0.631	0.011	0.034	0.184	0.011	0.015	0.2	0.514
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	12##	2.5	4.417	18.	2.5	22.947	4.79	2.5	2.5	2.5	15.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	12##	2.5	3.25	8.	2.5	3.25	1.803	2.5	2.5	2.5	7.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	12##	2.5	3.25	10.	2.5	4.705	2.169	2.5	2.5	2.5	8.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	12##	0.05	0.087	0.4	0.05	0.01	0.1	0.05	0.05	0.088	0.31
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	12	0.02	0.027	0.08	0.01	0.	0.021	0.01	0.01	0.038	0.071
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	12	0.8	0.833	1.29	0.49	0.058	0.24	0.505	0.683	0.985	1.263
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	12	0.4	0.467	1.	0.3	0.041	0.202	0.3	0.3	0.575	0.88
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	12##	0.05	0.071	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	12	0.03	0.033	0.06	0.02	0.	0.014	0.02	0.02	0.038	0.06
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	12	6.	6.75	12.	4.	7.114	2.667	4.3	5.	9.	11.7
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	10	1200.	1335.	4700.	50.	1750027.778	1322.886	65.	350.	1700.	4400.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	10	3.078	2.894	3.672	1.699	0.315	0.561	1.759	2.527	3.23	3.628
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		783.359							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	11	15.1	15.	25.	5.	50.892	7.134	5.6	8.	22.9	24.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	11	198.	189.636	253.	97.	2018.855	44.932	108.8	157.	217.	251.
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	10	10.2	10.37	12.5	8.	1.945	1.394	8.14	9.475	11.5	12.49
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	11	1.	2.136	9.	0.5	6.105	2.471	0.6	1.	2.	8.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	11	21.	17.636	28.	4.	65.255	8.078	4.4	10.	23.	27.8
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	11	7.89	7.982	8.74	7.41	0.142	0.377	7.472	7.77	8.11	8.706
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	11	7.89	7.862	8.74	7.41	0.158	0.398	7.472	7.77	8.11	8.706
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	11	0.013	0.014	0.039	0.	0.002	0.002	0.008	0.017	0.035	
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	11##	2.5	19.	120.	2.5	1263.85	35.551	2.5	2.5	11.	104.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	11##	2.5	4.318	18.	2.	21.664	4.654	2.1	2.5	5.	15.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	11	4.	16.5	102.	2.5	910.95	30.182	2.5	2.5	9.	89.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	11##	0.05	0.077	0.2	0.05	0.002	0.047	0.05	0.05	0.1	0.18
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	11	0.02	0.024	0.05	0.01	0.	0.011	0.01	0.02	0.03	0.046
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	11	0.79	0.746	1.18	0.18	0.085	0.291	0.234	0.47	0.98	1.144
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	11	0.5	0.518	1.3	0.2	0.108	0.328	0.2	0.3	0.6	1.22
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	11	0.1	0.105	0.4	0.05	0.01	0.101	0.05	0.05	0.1	0.34
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	11	0.04	0.053	0.19	0.02	0.002	0.05	0.02	0.02	0.07	0.166
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	7	8.	7.429	10.	5.	4.286	2.07	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	10	1350.	2095.6	8000.	46.	5828580.267	2414.245	48.4	272.5	3500.	7550.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	10	3.13	2.956	3.903	1.663	0.535	0.732	1.681	2.36	3.544	3.867

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0101

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	904.164							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0101

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	13	15.	13.938	24.7	4.8	65.391	8.086	4.88	5.15	21.25	24.14
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	9	176.	187.889	257.	129.	1460.611	38.218	129.	166.5	214.5	257.
00300 OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	13	9.3	10.708	14.8	6.7	8.659	2.943	7.18	8.3	13.45	14.8
00310 BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	9	2.	2.278	7.	0.5	4.194	2.048	0.5	1.	3.	7.
00340 COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	9	14.	18.778	36.	7.	107.694	10.378	7.	11.	29.	36.
00400 PH (STANDARD UNITS)	09/26/72-06/20/90	13	7.83	7.774	9.09	4.05	1.509	1.228	5.402	7.675	8.245	9.09
00400 CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	13	7.83	5.163	9.09	4.05	8.893	2.982	5.402	7.675	8.245	9.09
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	13	0.015	6.868	89.125	0.001	610.843	24.715	0.001	0.006	0.021	53.49
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	9	6.	14.944	94.	2.	885.528	29.758	2.	2.75	8.5	94.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	8	2.25	3.563	14.	1.	18.96	4.354	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	9	3.	12.056	80.	0.	656.778	25.628	0.	1.5	7.5	80.
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.07	0.098	0.3	0.02	0.007	0.084	0.022	0.04	0.143	0.285
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.035	0.055	0.16	0.01	0.002	0.049	0.011	0.02	0.083	0.156
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	10	0.695	0.747	1.11	0.26	0.062	0.249	0.295	0.633	0.975	1.107
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	10	0.55	0.57	0.9	0.4	0.022	0.149	0.4	0.475	0.625	0.88
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	10	0.1	0.103	0.2	0.05	0.002	0.042	0.05	0.088	0.108	0.193
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	10	0.05	0.062	0.13	0.03	0.001	0.035	0.03	0.038	0.083	0.129
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	7	4.1	5.486	8.8	2.9	5.865	2.422	**	**	**	**
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	11	8000.	7944.545	16000.	100.	48925627.273	6994.686	178.	1600.	16000.	16000.
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	11	3.903	3.561	4.204	2.	0.54	0.735	2.138	3.204	4.204	4.204
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	3642.48							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0101

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	9	17.4	16.9	27.1	9.4	41.675	6.456	9.4	9.8	21.9	27.1
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	7	167.	171.	220.	123.	1883.667	43.401	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	9	9.9	10.233	12.6	8.5	2.618	1.618	8.5	8.75	12.1	12.6
00310 BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	9	2.	3.167	10.	0.5	8.75	2.958	0.5	1.	4.5	10.
00340 COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	9	19.	20.111	30.	10.	47.861	6.918	10.	14.5	26.5	30.
00400 PH (STANDARD UNITS)	09/26/72-06/20/90	9	7.5	7.62	8.44	6.77	0.212	0.461	6.77	7.445	7.935	8.44
00400 CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	9	7.5	7.402	8.44	6.77	0.266	0.516	6.77	7.445	7.935	8.44
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	9	0.032	0.04	0.17	0.004	0.003	0.05	0.004	0.012	0.036	0.17
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	9	2.	27.222	212.	0.5	4836.569	69.545	0.5	0.5	12.5	212.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	9##	0.5	4.889	38.	0.5	154.424	12.427	0.5	0.5	1.5	38.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	9	2.	22.667	174.	0.5	3255.875	57.06	0.5	0.5	12.	174.
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	8##	0.03	0.073	0.18	0.02	0.005	0.07	**	**	**	**
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.015	0.021	0.05	0.005	0.	0.016	**	**	**	**
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	8	0.785	0.806	1.07	0.63	0.018	0.133	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	8	0.5	0.538	1.	0.3	0.054	0.233	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	8	0.1	0.106	0.2	0.05	0.002	0.042	**	**	**	**
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	8	0.035	0.045	0.08	0.02	0.001	0.023	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	9	6.1	6.378	8.7	4.	2.732	1.653	4.	4.9	7.9	8.7
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	9	600.	2973.333	16000.	50.	25609775.	5060.61	50.	435.	3500.	16000.
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	9	2.778	2.998	4.204	1.699	0.526	0.726	1.699	2.625	3.544	4.204
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	995.693							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1990 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	5	18.5	17.68	22.9	11.6	17.667	4.203	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	1	127.	127.	127.	0.	0.		**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	5	8.7	9.58	12.4	7.8	4.422	2.103	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	6	3.5	5.5	16.	2.	27.5	5.244	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	6	25.	28.	54.	15.	189.6	13.77	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	5	7.47	7.336	8.24	6.62	0.409	0.64	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	5	7.47	7.038	8.24	6.62	0.52	0.721	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	5	0.034	0.092	0.24	0.006	0.01	0.1	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	6	6.	16.75	72.	0.5	754.575	27.47	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	6	2.	2.75	8.	0.5	7.775	2.788	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	6	4.	14.083	64.	0.5	612.442	24.748	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	5	0.07	0.25	0.86	0.05	0.121	0.347	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	5	0.03	0.038	0.09	0.02	0.001	0.029	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	5	0.69	0.746	0.97	0.6	0.022	0.149	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	5	0.7	1.02	2.5	0.4	0.737	0.858	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	5	0.1	0.13	0.2	0.05	0.005	0.067	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	5	0.07	0.08	0.15	0.04	0.002	0.044	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	6	10.1	10.95	19.7	5.9	22.067	4.698	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	6	2600.	3348.333	8000.	690.	7213616.667	2685.818	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	09/26/72-06/20/90	6	3.387	3.397	3.903	2.839	0.145	0.381	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	2495.872								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	46	22.2	21.87	29.	2.1	21.912	4.681	16.28	20.	25.	27.03
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	27	206.	202.222	257.	139.	833.641	28.873	156.6	181.	220.	238.2
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	47	8.3	8.091	10.4	5.	1.251	1.118	6.6	7.6	8.6	9.52
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	28	1.	1.518	4.	0.5	0.916	0.957	0.5	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	28	18.	18.75	38.	4.	90.491	9.513	6.	11.5	25.5	35.1
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	47	7.5	7.391	8.5	4.05	0.472	0.687	6.76	7.2	7.78	8.014
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	47	7.5	5.709	8.5	4.05	3.363	1.834	6.76	7.2	7.78	8.014
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	47	0.032	1.955	89.125	0.003	168.782	12.992	0.01	0.017	0.063	0.177
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/02/74-06/20/90	3	49.	43.667	50.	32.	102.333	10.116	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/20/90	18	145.	222.	1010.	105.	44267.176	210.398	115.8	133.5	214.75	452.9
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/20/90	18	64.	61.667	155.	4.	1405.176	37.486	15.7	34.75	79.5	119.
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/20/90	18	111.5	160.333	855.	21.	35120.941	187.406	40.8	61.75	178.75	349.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	44	2.75	31.648	560.	0.	7945.867	89.14	0.5	2.5	13.75	104.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	44	2.5	7.523	90.	0.	311.255	17.642	0.5	2.	4.	14.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	44	2.5	25.023	480.	0.	5770.046	75.961	0.5	1.25	9.75	74.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	43 ##	0.05	0.136	1.4	0.02	0.055	0.235	0.05	0.05	0.1	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	43	0.02	0.032	0.32	0.005	0.003	0.053	0.005	0.005	0.03	0.092
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	39	0.6	0.583	1.2	0.04	0.068	0.261	0.26	0.37	0.77	0.94
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	43	0.4	0.52	1.7	0.1	0.111	0.333	0.24	0.3	0.6	1.019
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	27	0.1	0.096	0.3	0.05	0.003	0.058	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	27	0.04	0.061	0.3	0.02	0.003	0.058	0.02	0.03	0.07	0.132
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	27	6.6	9.111	22.	2.9	28.383	5.328	4.	5.	13.	17.6
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	09/26/72-06/20/90	44	1400.	2839.091	16000.	50.	10667529.387	3266.118	365.	555.	4275.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	09/26/72-06/20/90	44	3.146	3.162	4.204	1.699	0.309	0.556	2.56	2.744	3.631	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	09/26/72-06/20/90			1451.026								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	16	0.1	0.159	0.7	0.05	0.027	0.166	0.05	0.05	0.2	0.42
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/07/79	16	0.05	0.073	0.2	0.005	0.003	0.058	0.016	0.04	0.095	0.2

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	75	9.4	9.072	22.	0.	18.081	4.252	4.24	6.	11.5	14.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	46	185.	188.543	394.	70.	3230.076	56.834	121.9	155.5	221.75	250.2
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	75	11.	10.705	14.4	1.	5.88	2.425	7.12	10.	12.4	13.12
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	47	2.	3.255	25.	1.	18.803	4.336	1.	1.	3.	5.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-06/20/90	48	22.	22.896	63.	7.	126.904	11.265	10.	14.25	28.	35.1
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	74	7.	7.179	8.74	6.1	0.312	0.559	6.5	6.753	7.5	7.975
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	74	7.	6.895	8.74	6.1	0.394	0.628	6.5	6.752	7.5	7.975
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	74	0.1	0.127	0.794	0.002	0.022	0.148	0.011	0.032	0.177	0.316
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/02/74-06/20/90	9	24.	27.333	44.	9.	145.25	12.052	9.	17.	39.	44.
00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/20/90	33	128.	169.879	1155.	11.	36551.172	191.184	87.8	117.5	156.	179.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/20/90	33	43.	49.061	153.	9.	856.371	29.264	17.	28.5	66.	82.
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/20/90	33	83.	123.758	1082.	3.	33130.252	182.017	61.8	73.	98.	137.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	74	6.	14.027	212.	0.	959.623	30.978	1.5	2.5	12.25	24.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	73	2.5	4.295	38.	0.	33.77	5.811	0.5	2.	4.5	11.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	74	3.5	10.432	174.	0.	679.105	26.06	0.75	2.5	7.25	17.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	72 ##	0.05	0.083	0.5	0.02	0.005	0.072	0.05	0.05	0.1	0.194
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	71	0.01	0.016	0.06	0.005	0.	0.013	0.005	0.005	0.02	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	67	0.7	0.721	1.5	0.01	0.103	0.321	0.3	0.54	0.98	1.102
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	72	0.4	0.536	5.	0.05	0.335	0.579	0.2	0.3	0.6	0.805
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	47	0.1	0.106	0.7	0.05	0.011	0.106	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	47	0.05	0.07	0.47	0.02	0.006	0.076	0.02	0.03	0.07	0.158
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	43	9.	10.681	31.	1.	44.266	6.653	4.	6.	14.	18.2
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	09/26/72-06/20/90	73	500.	1469.534	16000.	46.	8261245.28	2874.238	50.	100.	1550.	3300.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH,44.5 C	09/26/72-06/20/90	73	2.699	2.673	4.204	1.663	0.461	0.679	1.699	2.	3.19	3.517

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			471.283								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	25 ##	0.05	0.07	0.2	0.05	0.001	0.035	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/07/79	24	0.04	0.042	0.1	0.005	0.	0.019	0.02	0.03	0.05	0.065

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-06/20/90	63	17.5	16.663	23.3	2.2	21.691	4.657	10.14	14.	20.	22.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-01/25/90	33	179.	171.061	226.	87.	1515.059	38.924	100.6	152.	203.	215.2
00300	OXYGEN, DISSOLVED MG/L	09/26/72-06/20/90	62	9.	9.331	14.8	5.8	3.571	1.89	7.33	8.	10.2	12.15
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-06/20/90	38	2.	3.5	16.	1.	11.392	3.375	1.	1.	4.25	8.1
00340	COD, 25N K2CR2O7 MG/L	08/15/79-06/20/90	37	23.	22.432	58.	7.	135.252	11.63	8.8	14.	30.	32.
00400	PH (STANDARD UNITS)	09/26/72-06/20/90	63	7.41	7.256	9.09	4.	0.629	0.793	6.24	6.8	7.69	8.148
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-06/20/90	63	7.41	5.763	9.09	4.	2.894	1.701	6.24	6.8	7.69	8.148
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-06/20/90	63	0.039	1.725	100.	0.001	158.339	12.583	0.007	0.02	0.158	0.579
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/02/74-06/20/90	9	32.	44.111	159.	11.	197.611	44.47	11.	22.	43.5	159.
00500	RESIDUE, TOTAL (MG/L)	09/26/72-06/20/90	27	142.	154.815	342.	90.	3370.003	58.052	109.2	120.	166.	236.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-06/20/90	28	41.	51.036	107.	27.	514.776	22.689	29.9	34.	68.5	87.2
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-06/20/90	28	92.5	103.929	260.	40.	2071.847	45.518	59.5	80.5	121.5	158.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-06/20/90	57	7.	20.36	164.	0.	1218.739	34.91	1.7	2.5	19.	61.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-06/20/90	57	3.	4.772	18.	0.	20.108	4.484	0.5	2.	7.5	12.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-06/20/90	58	4.	16.017	148.	0.	952.447	30.862	0.5	2.5	12.	52.3
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-06/20/90	58 ##	0.05	0.116	0.86	0.02	0.018	0.133	0.05	0.05	0.1	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	58	0.02	0.03	0.16	0.005	0.001	0.032	0.005	0.01	0.04	0.053
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-06/20/90	50	0.69	0.7	1.179	0.18	0.05	0.223	0.431	0.558	0.88	0.997
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-06/20/90	55	0.5	0.627	2.5	0.1	0.132	0.364	0.3	0.4	0.8	1.
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-06/20/90	33	0.1	0.115	0.4	0.05	0.007	0.086	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-06/20/90	36	0.04	0.051	0.19	0.01	0.002	0.041	0.02	0.03	0.06	0.096
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/15/79-06/20/90	37	8.5	10.195	28.	3.5	35.131	5.927	4.74	6.	14.	19.76
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	58	1650.	2705.172	16000.	50.	11827692.075	3439.141	100.	475.	3700.	7460.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-06/20/90	58	3.217	3.058	4.204	1.699	0.441	0.664	2.	2.675	3.568	3.873
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			1142.297								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-06/07/79	22	0.1	0.1	0.3	0.05	0.005	0.067	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	11/27/72-06/07/79	22	0.06	0.078	0.18	0.02	0.002	0.041	0.036	0.05	0.1	0.154

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0102

NPS Station ID: RICH0102  
 Location: GOVERNMENT RD. BRIDGE  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206046  
 RF3 Index: 02080205075300.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: GILLIE CREEK SECTION: 07 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.522253/ -77.411449

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-GIL000.42 /VA2-07-X0085/VA2-4X0085  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 6.560  
 RF3 Mile Point: 0.04

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.02

On/Off RF1: ON  
 On/Off RF3:

### Parameter Inventory for Station: RICH0102

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	144	17.5	17.617	37.	0.	79.127	8.895	5.	10.5	25.575
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/21/89	1	270.	270.	270.	270.	0.	0.	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	93	245.	250.14	538.	114.	4553.187	67.477	177.8	206.	277.5
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	142	10.05	10.102	15.	2.	3.557	1.886	8.	9.	11.
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	134	2.	3.448	25.	1.	13.467	3.67	1.	2.	4.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-02/21/89	93	15.	18.538	136.	2.	285.686	16.902	8.	10.	20.
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	143	7.5	7.728	10.	4.5	1.138	1.067	6.5	7.	8.5
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	143	7.5	6.496	10.	4.5	2.667	1.633	6.5	7.	8.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	143	0.032	0.319	31.623	0.	7.004	2.647	0.001	0.003	0.1
00403	PH, LAB, STANDARD UNITS SU	06/02/74-02/21/89	7	6.8	7.186	9.4	6.5	1.005	1.002	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	06/02/74-02/21/89	7	6.8	6.829	9.4	6.5	1.153	1.074	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/02/74-02/21/89	7	0.158	0.148	0.316	0.	0.011	0.104	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/02/74-02/21/89	6	22.5	23.833	42.	8.	137.367	11.72	**	**	**
00500	RESIDUE, TOTAL (MG/L)	05/27/74-02/21/89	52	186.5	215.308	1086.	117.	19120.649	138.277	144.	161.5	219.75
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/27/74-02/21/89	52	57.5	64.788	270.	26.	1427.503	37.782	31.	41.	81.5
00510	RESIDUE, TOTAL FIXED (MG/L)	05/27/74-02/21/89	52	121.	150.519	816.	74.	12298.529	110.899	89.6	106.	161.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	140	10.	37.793	800.	0.5	10972.514	104.75	2.5	5.	21.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	141	4.	8.092	110.	0.	177.799	13.334	1.	2.	8.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	141	5.	29.805	690.	0.	8579.053	92.623	1.2	2.5	15.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	140	0.2	0.309	3.799	0.04	0.173	0.416	0.05	0.05	0.4
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	140	0.025	0.039	0.4	0.005	0.002	0.044	0.005	0.013	0.05
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	124	1.3	1.331	2.9	0.08	0.372	0.61	0.54	0.893	1.8
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	138	0.6	0.804	8.099	0.2	0.82	0.906	0.3	0.4	0.8
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/17/77-04/21/82	17	1.7	3.426	35.	0.16	66.632	8.163	0.496	0.9	2.2
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	88 ##	0.05	0.099	0.4	0.05	0.007	0.081	0.05	0.05	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	91	0.03	0.045	0.29	0.005	0.003	0.056	0.01	0.02	0.05
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	130	8.	8.814	50.	0.5	48.292	6.949	4.	5.	9.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/29/88-02/21/89	2	28.	28.	30.	26.	8.	2.828	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	08/06/75-02/21/89	4	34.	36.25	54.	23.	220.917	14.863	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/29/88-02/21/89	2	16.5	16.5	19.	14.	12.5	3.536	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-02/21/89	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	11/18/75-03/28/85	8 ##	1	1.063	2.	0.5	0.246	0.496	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-10/25/79	1 ##	0.525	0.525	0.525	0.525	0.	0.	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01027	CADMUM, TOTAL (UG/L AS CD)	11/18/75-03/28/85	8 ##	5.	3.875	5.	0.5	4.339	2.083	**	**	**	**
01028	CADMUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-10/25/79	1	0.21	0.21	0.21	0.	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-10/25/79	1	4.4	4.4	4.4	4.4	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/75-03/28/85	11 ##	5.	4.591	5.	0.5	1.841	1.357	1.4	5.	5.	5.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/75-03/28/85	10 ##	5.	6.5	20.	5.	22.5	4.743	5.	5.	5.	18.5
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-10/25/79	1	1.9	1.9	1.9	1.9	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/01/78-11/01/78	1	300.	300.	300.	300.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/24/75-03/28/85	10	10.	30.4	116.	0.5	1608.1	40.101	0.6	3.375	63.75	112.2
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-10/25/79	1 ##	1.05	1.05	1.05	1.05	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/01/78-11/01/78	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	03/24/75-11/01/78	8 ##	50.	38.75	50.	5.	433.929	20.831	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-03/28/85	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-10/25/79	1 ##	1.05	1.05	1.05	1.05	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/75-03/28/85	11	30.	38.636	110.	5.	1235.455	35.149	5.	5.	70.	104.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-10/25/79	1	33.4	33.4	33.4	33.4	0.	0.	**	**	**	**
02152	INVALID PARAMETER	05/18/82-05/18/82	1	3940.	3940.	3940.	3940.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	136	650.	2207.721	8000.	50.	8314514.025	2883.49	50.	100.	3650.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	136	2.812	2.772	3.903	1.699	0.669	0.818	1.699	2.	3.562	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	591.767								
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39310	P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/18/82-03/28/85	2 ##	0.025	0.025	0.05	0.	0.001	0.035	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	05/18/82-05/18/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-08/22/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	05/27/74-06/07/79	50	0.1	0.205	2.	0.05	0.144	0.38	0.05	0.05	0.2	0.29
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	05/27/74-06/07/79	49	0.08	0.138	1.699	0.005	0.061	0.246	0.03	0.05	0.13	0.23
71900	MERCURY, TOTAL (UG/L AS HG)	03/24/75-03/28/85	11 ##	0.25	0.223	0.25	0.15	0.002	0.047	0.15	0.15	0.25	0.25
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-10/25/79	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0102

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	1	1	1.00				1	1	1.00						
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	142	1	0.01	37	0	0.00	58	0	0.00	47	1	0.02			
00400 PH	Fresh Chronic	9.	143	30	0.21	39	15	0.38	58	4	0.07	46	11	0.24			
00403 PH, LAB	Other-Lo Lim.	6.5	143	15	0.10	39	1	0.03	58	7	0.12	46	7	0.15			
	Fresh Chronic	9.	7	1	0.14	1	1	1.00	3	0	0.00	3	0	0.00			
	Other-Lo Lim.	6.5	7	1	0.14	1	0	0.00	3	1	0.33	3	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	140	0	0.00	37	0	0.00	58	0	0.00	45	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	124	0	0.00	33	0	0.00	54	0	0.00	37	0	0.00			
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	17	1	0.06	4	0	0.00	4	0	0.00	9	1	0.11			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	4	0	0.00	1	0	0.00	3	0	0.00						
	Drinking Water	250.	4	0	0.00	1	0	0.00	3	0	0.00						
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00				2	0	0.00						
00951 FLUORIDE, TOTAL AS F	Drinking Water	4.	2	0	0.00				2	0	0.00						
01002 ARSENIC, TOTAL	Fresh Acute	360.	8	0	0.00				3	0	0.00	5	0	0.00			
	Drinking Water	50.	8	0	0.00				3	0	0.00	5	0	0.00			
01027 CADMIUM, TOTAL	Fresh Acute	3.9	2&	0	0.00							2	0	0.00			
	Drinking Water	5.	2&	0	0.00							2	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	11	0	0.00				4	0	0.00	7	0	0.00			
01042 COPPER, TOTAL	Fresh Acute	18.	10	1	0.10				4	1	0.25	6	0	0.00			
01051 LEAD, TOTAL	Drinking Water	1300.	10	0	0.00				4	0	0.00	6	0	0.00			
	Fresh Acute	82.	10	1	0.10				3	0	0.00	7	1	0.14			
01065 NICKEL, DISSOLVED	Drinking Water	15.	10	5	0.50				3	2	0.67	7	3	0.43			
	Fresh Acute	1400.	8	0	0.00				4	0	0.00	4	0	0.00			
01067 NICKEL, TOTAL	Drinking Water	100.	8	0	0.00				4	0	0.00	4	0	0.00			
01092 ZINC, TOTAL	Fresh Acute	1400.	2	0	0.00							2	0	0.00			
	Drinking Water	100.	2	0	0.00							2	0	0.00			
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	136	92	0.68	37	23	0.62	55	39	0.71	44	30	0.68			
34356 ENDOSULFAN, BETA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00			
34361 ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00			
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	1	0	0.00							1	0	0.00			
	Drinking Water	1.	1	0	0.00							1	0	0.00			
39300 P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	1	0	0.00							1	0	0.00			
39310 P,P'DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	1	0	0.00							1	0	0.00			
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	1	0	0.00							1	0	0.00			
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00							2	0	0.00			
39340 GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00							1	0	0.00			
	Drinking Water	0.2	1	0	0.00							1	0	0.00			
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	1	0	0.00							1	0	0.00			
39390 ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	1	0	0.00							1	0	0.00			
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00							1	0	0.00			
	Fresh Acute	0.73	1	0	0.00							1	0	0.00			
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Drinking Water	3.	1	0	0.00							1	0	0.00			
	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Drinking Water	0.4	1	0	0.00							1	0	0.00			
	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	0.2	1	0	0.00							1	0	0.00			
39730 2,4-D IN WHOLE WATER SAMPLE	Drinking Water	3.	1	0	0.00							1	0	0.00			
39760 SILVEX IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00							1	0	0.00			
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00				1	0	0.00			
71900 MERCURY, TOTAL	Fresh Acute	2.4	11	0	0.00				4	0	0.00	7	0	0.00			
	Drinking Water	2.	11	0	0.00				4	0	0.00	7	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1974 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	5	17.8	17.68	29.4	5.6	70.832	8.416	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	6	9.9	9.3	15.	2.	18.412	4.291	**	**	**	**
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	6	8.	8.25	10.	7.	1.675	1.294	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	6	7.76	7.407	10.	7.	2.528	1.59	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/27/74-11/29/88	6	0.017	0.039	0.1	0.	0.002	0.049	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	5	6.	119.2	366.	4.	27303.7	165.238	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	5	5.	17.2	55.	2.	515.7	22.709	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	5	3.	102.	311.	1.	20491.	143.147	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	6	0.3	0.6	1.5	0.1	0.356	0.596	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	6##	0.013	0.023	0.07	0.005	0.001	0.025	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	6	1.06	1.006	2.199	0.08	0.643	0.802	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	6	0.7	1.133	3.199	0.3	1.166	1.08	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	6	1650.	2591.667	6000.	50.	7462416.667	2731.742	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	6	3.212	2.997	3.778	1.699	0.698	0.836	**	**	**	**
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	992.805								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	11	16.1	17.109	26.1	4.4	52.707	7.26	5.4	12.2	25.6	26.
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	11	10.2	10.227	14.	8.	3.888	1.972	8.	8.4	11.4	13.8
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	10	4.5	4.3	7.	2.	2.456	1.567	2.1	3.	5.25	6.9
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	11	7.5	7.545	9.3	5.6	1.323	1.15	5.78	6.7	9.	9.24
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	11	7.5	6.528	9.3	5.6	2.463	1.569	5.78	6.7	9.	9.24
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/27/74-11/29/88	11	0.032	0.297	2.512	0.001	0.549	0.741	0.001	0.001	0.2	2.073
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	14.	31.2	170.	2.	2577.733	50.771	2.2	4.75	33.	157.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	8.	10.5	42.	0.	151.389	12.304	0.2	2.	13.5	39.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	4.5	20.8	152.	2.	2151.511	46.384	2.	2.	13.75	138.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	0.3	0.35	0.8	0.05	0.044	0.209	0.06	0.3	0.4	0.76
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	10	0.02	0.027	0.07	0.005	0.	0.02	0.005	0.016	0.035	0.068
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	10	1.274	1.204	1.969	0.21	0.437	0.661	0.237	0.555	1.934	1.967
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	11	0.8	0.745	1.099	0.4	0.057	0.238	0.42	0.5	0.9	1.079
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	10	9.	10.3	18.	8.	9.344	3.057	8.	8.75	10.75	17.5
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	11	3300.	3040.909	6000.	50.	5658409.091	2378.741	60.	500.	6000.	6000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	11	3.519	3.167	3.778	1.699	0.546	0.739	1.759	2.699	3.778	3.778
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	1467.787								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	11	19.4	18.727	32.2	7.8	88.43	9.404	7.8	8.3	28.3	31.76
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	11	11.	11.	14.	9.2	2.378	1.542	9.2	9.6	11.3	13.88
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	12	3.	3.833	11.	1.	6.697	2.588	1.3	3.	4.5	9.5
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	11	7.9	8.055	9.5	6.7	0.867	0.931	6.76	7.5	9.	9.4
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	11	7.9	7.418	9.5	6.7	1.313	1.146	6.76	7.5	9.	9.4
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/27/74-11/29/88	11	0.013	0.038	0.2	0.	0.004	0.061	0.	0.001	0.032	0.18
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	12	8.	15.292	48.	0.5	292.248	17.095	0.5	1.375	23.	48.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	12	2.	4.292	12.	0.	19.612	4.429	0.15	0.5	9.5	11.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	12	6.	11.125	38.	0.5	178.506	13.361	0.5	0.875	17.5	37.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	12	0.2	0.267	0.6	0.05	0.044	0.209	0.05	0.1	0.475	0.6
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	12	0.02	0.028	0.07	0.005	0.	0.02	0.007	0.013	0.038	0.067

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	12	1.6	1.35	2.099	0.22	0.437	0.661	0.28	0.805	1.942	2.066
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	12	0.55	0.608	1.099	0.3	0.053	0.231	0.33	0.425	0.775	1.039
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	12	7.5	8.167	15.	5.	7.424	2.725	5.	7.	9.	13.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	12	750.	1729.167	6000.	50.	4450208.333	2109.552	65.	100.	3475.	5670.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	12	2.778	2.763	3.778	1.699	0.582	0.763	1.789	2.	3.538	3.752
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	579.201								

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### Annual Analysis for 1977 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	9	7.	12.822	37.	1.4	147.472	12.144	1.4	2.75	21.5	37.
03000	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	9	9.8	10.422	14.	8.	3.364	1.834	8.	9.	11.6	14.
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	9	3.	5.556	23.	2.	44.278	6.654	2.	2.5	5.	23.
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	9	8.5	8.633	10.	7.5	0.83	0.911	7.5	7.65	9.45	10.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	9	8.5	8.014	10.	7.5	1.262	1.123	7.5	7.65	9.45	10.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/27/74-11/29/88	9	0.003	0.01	0.032	0.	0.	0.013	0.	0.	0.024	0.032
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	19.	18.556	41.	3.	165.278	12.856	3.	7.5	29.	41.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	4.	5.111	14.	0.	20.111	4.485	0.	2.5	8.	14.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	7.	13.444	30.	0.	132.528	11.512	0.	4.5	25.	30.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	9	0.5	0.878	3.799	0.1	1.554	1.246	0.1	0.1	1.3	3.799
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	9	0.03	0.098	0.4	0.02	0.016	0.128	0.02	0.02	0.16	0.4
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	5	1.299	1.575	2.299	1.099	0.255	0.505	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	9	0.7	1.7	8.099	0.2	6.323	2.515	0.2	0.5	1.9	8.099
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	9	8.	8.889	21.	2.	30.611	5.533	2.	5.	11.	21.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	8	800.	1906.25	6000.	50.	5630312.5	2372.828	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	8	2.9	2.892	3.778	1.699	0.494	0.703	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	779.443								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	8	19.5	21.438	31.	15.	26.888	5.185	**	**	**	**
03000	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	9	9.7	9.333	12.	5.8	3.778	1.944	5.8	8.1	10.6	12.
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	8	2.5	4.875	16.	2.	25.839	5.083	**	**	**	**
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	9	8.	8.556	10.	6.4	1.685	1.298	6.4	7.7	10.	10.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	9	8.	7.288	10.	6.4	3.492	1.869	6.4	7.7	10.	10.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	05/27/74-11/29/88	9	0.01	0.051	0.398	0.	0.017	0.13	0.	0.	0.022	0.398
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	8	4.5	17.938	100.	0.5	1146.388	33.858	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	8	0.75	5.063	20.	0.	53.817	7.336	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	8	4.	13.063	80.	0.5	740.388	27.21	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	8##	0.225	0.263	0.7	0.05	0.061	0.247	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	8	0.03	0.043	0.1	0.005	0.001	0.033	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	8	0.65	0.65	1.2	0.2	0.143	0.378	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	8	7.5	10.25	26.	3.	65.071	8.067	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	8##	75.	3037.5	8000.	50.	16886964.286	4109.375	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	8##	1.849	2.563	3.903	1.699	1.242	1.114	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	365.716								

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### Annual Analysis for 1979 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	9	15.5	17.556	27.	5.	63.903	7.994	5.	11.75	26.75	27.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	5	240.	237.	293.	161.	3007.5	54.841	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	9	10.3	9.933	12.4	8.5	1.59	1.261	8.5	8.75	10.55	12.4
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	9	2.	4.556	15.	1.	26.028	5.102	1.	1.	8.	15.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	5	22.	35.4	95.	14.	1164.8	34.129	**	**	**	**
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	9	7.	7.4	9.	6.5	0.545	0.738	6.5	7.	7.8	9.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	9	7.	7.061	9.	6.5	0.674	0.821	6.5	7.	7.8	9.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	9	0.1	0.087	0.316	0.001	0.009	0.096	0.001	0.016	0.1	0.316
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	12.	99.833	800.	2.5	68978.5	262.638	2.5	7.	20.5	800.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	4.	15.944	110.	2.	1249.403	35.347	2.	2.25	8.	110.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	9.	84.167	690.	2.5	51645.625	227.257	2.5	4.	17.	690.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	8	0.2	0.306	0.9	0.05	0.087	0.296	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	9	0.02	0.022	0.03	0.01	0.	0.007	0.01	0.02	0.03	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	5	1.2	1.1	1.4	0.6	0.12	0.346	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	9	0.5	0.722	1.6	0.4	0.192	0.438	0.4	0.4	1.1	1.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	5 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	5	0.04	0.048	0.07	0.04	0.	0.013	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	9	9.	12.667	36.	8.	81.75	9.042	8.	8.	13.5	36.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	900.	3805.556	8000.	50.	15885277.778	3985.634	50.	350.	8000.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	2.954	3.125	3.903	1.699	0.662	0.814	1.699	2.54	3.903	3.903
	GEOMETRIC MEAN =				1332.807								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1980 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	11	15.	16.227	29.	3.	74.168	8.612	3.8	8.5	22.	28.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	11	265.	242.818	300.	158.	2171.564	46.6	164.	190.	278.	295.8
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	11	10.4	9.982	12.6	7.4	2.364	1.537	7.52	8.6	10.8	12.36
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	11	2.	2.636	8.	1.	3.655	1.912	1.	2.	3.	7.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	11	12.	16.909	45.	7.	128.691	11.344	7.2	9.	20.	41.6
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	11	7.3	7.736	9.	6.3	1.095	1.046	6.4	7.	9.	9.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	11	7.3	7.038	9.	6.3	1.631	1.277	6.4	7.	9.	9.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	11	0.05	0.092	0.501	0.001	0.021	0.145	0.001	0.001	0.1	0.433
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	9.	30.864	221.	2.5	4034.705	63.519	3.	7.	23.	182.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	4.	7.773	45.	1.	159.268	12.62	1.	2.5	7.	38.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	6.	23.318	176.	2.	2610.714	51.095	2.	2.5	15.	145.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	0.2	0.218	0.7	0.05	0.041	0.202	0.05	0.05	0.3	0.64
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	0.02	0.027	0.06	0.005	0.	0.018	0.006	0.01	0.03	0.06
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	1.8	1.705	2.9	0.5	0.484	0.695	0.56	1.2	2.3	2.792
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	11	0.5	0.473	0.6	0.2	0.018	0.135	0.22	0.4	0.6	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	11 ##	0.05	0.095	0.4	0.05	0.011	0.104	0.05	0.05	0.1	0.34
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	11	0.02	0.028	0.06	0.005	0.	0.021	0.006	0.01	0.05	0.06
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	11	9.	13.545	50.	7.	154.473	12.429	7.2	8.	13.	43.4
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	11	100.	1909.091	8000.	50.	9779909.091	3127.285	50.	50.	2900.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	11	2.	2.538	3.903	1.699	0.828	0.91	1.699	1.699	3.462	3.903
	GEOMETRIC MEAN =				345.418								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	11	14.5	15.273	31.	0.	119.018	10.91	0.4	4.5	25.	30.4
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	11	252.	279.273	390.	212.	3037.818	55.116	217.8	242.	314.	384.4
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	10	9.45	9.72	13.	7.1	3.651	1.911	7.15	8.125	11.325	12.93
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	11	2.	4.455	25.	1.	47.873	6.919	1.	2.	4.	21.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	11	15.	25.364	136.	8.	1364.655	36.941	8.2	10.	18.	113.2
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.15	7.72	10.	6.8	1.54	1.241	6.81	6.9	8.35	10.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.125	7.15	10.	6.8	1.901	1.379	6.81	6.9	8.35	10.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	10	0.075	0.071	0.158	0.	0.003	0.058	0.	0.012	0.126	0.155
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	7.	17.864	113.	2.5	1017.205	31.894	3.	5.	13.	94.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	4.	7.773	53.	1.	227.868	15.095	1.	2.	5.	43.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	5.	10.318	60.	0.	282.414	16.805	0.5	3.	9.	50.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	0.4	0.305	0.9	0.05	0.078	0.28	0.05	0.05	0.5	0.82
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	0.05	0.058	0.11	0.005	0.001	0.037	0.008	0.03	0.11	0.11
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	1.2	1.313	2.5	0.7	0.282	0.531	0.74	0.9	1.7	2.38
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	11	0.5	0.8	2.2	0.3	0.392	0.626	0.3	0.4	1.4	2.06
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	11 ##	0.05	0.127	0.4	0.05	0.015	0.121	0.05	0.05	0.2	0.38
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	11	0.04	0.083	0.29	0.01	0.008	0.089	0.012	0.02	0.14	0.27
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	11	8.	12.	50.	4.	172.4	13.13	4.	5.	13.	43.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	1700.	2522.222	8000.	50.	10438819.444	3230.916	50.	75.	5150.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	3.23	2.858	3.903	1.699	0.785	0.886	1.699	1.849	3.632	3.903
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	720.845								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	10	17.25	18.	31.5	5.	54.389	7.375	5.65	13.375	23.75	30.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	10	288.	306.1	538.	160.	10020.1	100.1	169.6	256.75	333.	523.2
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	10	8.6	8.74	12.	6.1	3.743	1.935	6.16	6.85	10.375	11.89
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	10	2.	2.1	3.	1.	0.767	0.876	1.	1.	3.	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	10	15.5	15.5	25.	2.	48.944	6.996	2.8	10.	21.	24.9
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	10	6.8	6.86	7.5	6.5	0.14	0.375	6.5	6.5	7.125	7.5
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	10	6.8	6.748	7.5	6.5	0.154	0.393	6.5	6.5	7.125	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	10	0.158	0.179	0.316	0.032	0.012	0.109	0.032	0.083	0.316	0.316
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	12.	15.	43.	5.	146.	12.083	5.	6.5	19.5	43.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	5.	5.6	12.	2.	12.711	3.565	2.	2.	8.5	11.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	6.	11.4	31.	2.	110.933	10.532	2.1	3.75	19.	30.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	10	0.2	0.17	0.3	0.05	0.012	0.111	0.05	0.05	0.3	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	10	0.03	0.048	0.13	0.01	0.001	0.038	0.011	0.02	0.073	0.125
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	10	1.135	1.108	2.2	0.09	0.344	0.587	0.139	0.678	1.5	2.13
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	10	0.5	0.475	0.6	0.3	0.013	0.114	0.3	0.375	0.6	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	10 ##	0.05	0.085	0.3	0.05	0.006	0.078	0.05	0.05	0.1	0.28
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	10	0.025	0.029	0.06	0.01	0.	0.017	0.01	0.018	0.043	0.059
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	10	5.5	5.4	9.	2.	6.044	2.459	2.	2.75	7.25	8.9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	700.	1055.556	3700.	100.	1215277.778	1102.396	100.	350.	1450.	3700.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	2.845	2.829	3.568	2.	0.208	0.456	2.	2.54	3.159	3.568
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	675.004								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	9	11.5	16.222	33.	0.5	130.819	11.438	0.5	7.5	27.	33.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	9	240.	227.778	304.	169.	2323.194	48.2	169.	180.5	267.	304.
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	9	11.	11.022	14.	8.5	3.442	1.855	8.5	9.1	12.5	14.
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	8	3.	3.125	6.	1.	2.696	1.642	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	9	20.	20.556	37.	8.	92.028	9.593	8.	13.5	28.5	37.
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	8	6.75	6.8	7.2	6.5	0.063	0.251	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	8	6.747	6.741	7.2	6.5	0.067	0.259	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	8	0.179	0.182	0.316	0.063	0.009	0.096	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	18.	29.444	109.	5.	1053.278	32.454	5.	9.5	40.	109.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	5.	8.	23.	2.	44.75	6.69	2.	3.5	11.5	23.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	9	13.	21.444	86.	0.	690.528	26.278	0.	5.	28.5	86.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	9	0.2	0.206	0.5	0.05	0.022	0.149	0.05	0.05	0.3	0.5
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	9	0.01	0.022	0.07	0.005	0.	0.022	0.005	0.008	0.035	0.07
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	9	1.3	1.369	2.2	0.51	0.414	0.644	0.51	0.735	1.975	2.2
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	9	0.5	0.689	1.3	0.3	0.124	0.352	0.3	0.45	1.	1.3
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	9##	0.05	0.061	0.1	0.05	0.	0.022	0.05	0.05	0.075	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	9	0.02	0.021	0.04	0.01	0.	0.011	0.01	0.01	0.03	0.04
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	9	8.	7.667	12.	3.	8.5	2.915	3.	5.5	10.	12.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	7	800.	2121.429	8000.	50.	8146547.619	2854.216	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	7	2.903	2.912	3.903	1.699	0.543	0.737	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	816.494								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	7	22.	21.643	31.5	12.	49.893	7.063	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	7	202.	190.857	219.	145.	653.81	25.57	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	6	9.4	9.433	10.6	8.4	0.731	0.855	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	6	2.	2.333	4.	1.	1.867	1.366	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	7	13.	16.143	31.	5.	103.476	10.172	**	**	**	**
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	7	6.85	6.893	9.1	4.5	2.137	1.462	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	7	6.85	5.327	9.1	4.5	4.997	2.235	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	7	0.141	4.708	31.623	0.001	140.917	11.871	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	7	14.	145.143	740.	2.5	75191.393	274.21	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	7	5.	15.	58.	2.5	407.917	20.197	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	7	5.	130.857	682.	2.5	64411.726	253.795	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	7##	0.05	0.157	0.4	0.05	0.021	0.146	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	7	0.04	0.039	0.08	0.005	0.001	0.03	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	7	1.5	1.459	2.5	0.42	0.651	0.807	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	7	0.4	0.443	0.9	0.3	0.043	0.207	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	7	0.2	0.171	0.3	0.05	0.012	0.107	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	7	0.14	0.126	0.26	0.01	0.013	0.112	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	7	7.	9.429	17.	5.	24.286	4.928	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	6	1350.	3208.333	8000.	50.	13740416.667	3706.807	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	6	3.128	3.089	3.903	1.699	0.671	0.819	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	1227.02								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	10	18.75	19.55	29.	4.7	51.678	7.189	5.71	14.95	25.75	28.75
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	10	252.5	236.7	293.	114.	2753.344	52.472	122.2	210.25	270.75	291.9
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	10	10.25	10.11	14.1	8.	2.817	1.678	8.04	8.85	10.475	13.76
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	10	1.	1.5	3.	1.	0.722	0.85	1.	1.	2.25	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	10	13.5	14.7	33.	6.	69.567	8.341	6.	7.5	20.25	31.8
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.2	7.49	8.9	6.6	0.617	0.785	6.62	6.875	8.1	8.85
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.155	7.083	8.9	6.6	0.801	0.895	6.62	6.875	8.1	8.85
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	10	0.07	0.083	0.251	0.001	0.007	0.084	0.002	0.008	0.134	0.242
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	11.	17.7	82.	2.5	547.733	23.404	2.5	4.375	19.	75.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	4.5	6.1	14.	2.	19.156	4.377	2.05	2.5	9.25	13.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	10	5.5	12.1	68.	2.5	398.267	19.957	2.5	2.875	11.25	62.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	8	0.2	0.206	0.5	0.05	0.025	0.159	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	8	0.035	0.038	0.11	0.005	0.001	0.035	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	8	1.45	1.558	2.36	1.09	0.185	0.43	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	5	0.8	1.76	6.	0.2	5.783	2.405	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	5 ##	0.05	0.06	0.1	0.05	0.001	0.022	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	8	0.025	0.022	0.04	0.005	0.	0.013	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	10	4.5	5.85	16.	0.5	18.892	4.346	0.65	3.5	7.5	15.3
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	1700.	2550.	8000.	50.	10553125.	3248.557	50.	50.	5250.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	3.23	2.801	3.903	1.699	0.9	0.949	1.699	1.699	3.651	3.903
	GEOMETRIC MEAN =				633.014								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	12	15.	18.808	31.5	6.	87.823	9.371	7.05	10.625	28.175	31.35
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	12	240.	264.167	478.	219.	5114.152	71.513	220.2	226.75	264.75	426.7
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	12	10.6	10.108	12.	8.1	1.957	1.399	8.13	8.775	11.3	11.88
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	12	2.	2.5	9.	1.	5.182	2.276	1.	1.	3.	7.5
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	12	13.	15.25	45.	7.	102.205	10.11	7.	10.25	16.5	37.5
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	12	7.645	7.836	9.8	6.5	1.212	1.101	6.53	6.9	8.695	9.74
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	12	7.645	7.121	9.8	6.5	1.769	1.33	6.53	6.9	8.695	9.74
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	12	0.023	0.076	0.316	0.	0.012	0.108	0.	0.002	0.135	0.297
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	12	5.5	15.417	50.	2.5	280.356	16.744	2.5	2.5	26.25	47.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	12	5.	6.167	13.	2.	16.97	4.119	2.15	2.5	10.5	12.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	12	3.5	7.917	37.	1.	107.811	10.383	1.45	2.5	10.25	31.3
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	12	0.25	0.308	0.7	0.05	0.06	0.245	0.05	0.05	0.575	0.67
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	12	0.05	0.053	0.12	0.005	0.001	0.036	0.007	0.015	0.085	0.111
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	12	1.55	1.504	2.25	0.09	0.375	0.613	0.357	1.18	2.075	2.223
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	12	0.7	0.808	1.6	0.3	0.144	0.38	0.36	0.6	0.875	1.57
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	12	0.1	0.087	0.1	0.05	0.001	0.023	0.05	0.063	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	12	0.02	0.03	0.07	0.01	0.	0.019	0.01	0.02	0.04	0.067
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	12	6.	5.833	8.	4.	1.424	1.193	4.3	5.	6.	8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	11	200.	1045.455	8000.	50.	5529727.273	2351.537	50.	50.	900.	6700.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	11	2.301	2.367	3.903	1.699	0.534	0.731	1.699	1.699	2.954	3.758
	GEOMETRIC MEAN =				232.635								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	11	15.	17.9	35.	4.5	102.772	10.138	5.2	9.	27.2	34.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	11	240.	257.091	480.	188.	6674.291	81.696	189.	201.	279.	440.6
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	9	10.9	10.756	13.4	8.8	1.673	1.293	8.8	10.	11.35	13.4
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	11	3.	3.909	14.	1.	14.091	3.754	1.	2.	4.	12.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	11	16.	17.273	33.	9.	46.818	6.842	9.4	12.	21.	31.
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.925	8.04	9.13	7.19	0.37	0.608	7.208	7.685	8.428	9.11
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.922	7.749	9.13	7.19	0.464	0.681	7.208	7.685	8.427	9.11
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	10	0.012	0.018	0.065	0.001	0.	0.02	0.001	0.004	0.023	0.062
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	7.	19.727	152.	2.5	1941.518	44.063	2.5	2.5	12.	124.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	2.5	5.409	28.	0.	60.641	7.787	0.4	2.5	6.	24.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	11	2.5	15.045	124.	1.	1315.823	36.274	1.3	2.5	8.	101.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	0.3	0.309	1.2	0.05	0.11	0.332	0.05	0.05	0.4	1.04
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	0.01	0.025	0.09	0.005	0.001	0.027	0.006	0.01	0.03	0.084
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	11	1.2	1.284	1.9	0.54	0.213	0.462	0.57	0.99	1.68	1.896
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	11	0.6	0.918	2.8	0.3	0.512	0.715	0.34	0.5	1.2	2.54
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	11	0.1	0.118	0.3	0.05	0.009	0.093	0.05	0.05	0.1	0.3
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	11	0.02	0.038	0.18	0.01	0.002	0.049	0.01	0.01	0.03	0.156
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	7	6.	6.429	9.	5.	1.952	1.397	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	10	300.	2310.	8000.	50.	11462111.111	3385.574	50.	50.	5900.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	10	2.349	2.606	3.903	1.699	0.939	0.969	1.699	1.699	3.763	3.903
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	403.499								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	10	14.6	16.72	29.8	4.4	99.717	9.986	4.46	8.	26.675	29.54
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	6	198.5	215.5	291.	165.	2158.3	46.458	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	10	10.7	10.86	14.4	8.5	3.985	1.996	8.55	9.	12.475	14.23
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	6	2.	1.833	3.	1.	0.567	0.753	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	6	16.5	15.	22.	8.	34.4	5.865	**	**	**	**
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.955	7.989	9.	6.39	0.663	0.814	6.487	7.405	8.76	9.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	10	7.954	7.271	9.	6.39	1.236	1.112	6.487	7.405	8.76	9.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	10	0.011	0.054	0.407	0.001	0.016	0.125	0.001	0.002	0.039	0.371
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	6	8.	18.25	80.	1.	928.975	30.479	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	6	3.5	5.333	12.	0.5	20.967	4.579	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	6	2.25	13.583	68.	1.	715.642	26.751	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	7	0.1	0.137	0.3	0.04	0.011	0.105	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	7	0.02	0.026	0.05	0.01	0.	0.013	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	7	0.67	0.85	1.4	0.54	0.13	0.361	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	7	0.7	0.714	1.1	0.5	0.038	0.195	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	7	0.1	0.114	0.2	0.1	0.001	0.038	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	7	0.04	0.05	0.09	0.02	0.001	0.027	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	4	5.6	5.225	6.1	3.6	1.256	1.121	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	300.	1311.111	8000.	50.	6892986.111	2625.45	50.	75.	1450.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	9	2.477	2.473	3.903	1.699	0.57	0.755	1.699	1.849	3.	3.903
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	297.035								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	1	230.	230.	230.	230.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/15/79-02/21/89	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	1	350.	350.	350.	350.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	1	38.	38.	38.	38.	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	1	312.	312.	312.	312.	0.	0.	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	1	4.4	4.4	4.4	4.4	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	1##	1.699	1.699	1.699	1.699	1.699	0.	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		50.							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	37	26.5	25.327	37.	0.	54.007	7.349	17.96	23.1	29.6	32.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	25	232.	229.88	362.	114.	2807.443	52.985	165.4	194.5	271.	288.2
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	37	8.8	8.881	11.	5.8	1.556	1.247	7.28	8.05	9.6	10.76
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	36	2.	2.833	11.	1.	4.486	2.118	1.	1.25	3.75	5.3
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	25	18.	18.04	45.	2.	79.707	8.928	10.	11.5	21.5	32.4
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	39	8.5	8.319	10.	6.5	1.203	1.097	6.85	7.4	9.1	10.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	39	8.5	7.401	10.	6.5	2.069	1.438	6.85	7.4	9.1	10.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	39	0.003	0.04	0.316	0.	0.005	0.069	0.	0.001	0.04	0.141
00500	RESIDUE, TOTAL (MG/L)	05/27/74-02/21/89	14	173.	185.714	264.	136.	1527.143	39.079	139.	156.5	218.75	251.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/27/74-02/21/89	14	65.5	65.	124.	27.	995.846	31.557	28.5	34.	89.25	115.5
00510	RESIDUE, TOTAL FIXED (MG/L)	05/27/74-02/21/89	14	106.	120.714	199.	74.	1508.989	38.846	81.5	92.5	144.5	195.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	37	8.	18.676	221.	0.5	1419.503	37.676	2.5	3.5	17.5	43.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	37	4.	5.635	45.	0.	58.592	7.655	0.4	2.25	6.5	12.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	37	4.	13.419	176.	0.	919.882	30.33	0.9	2.5	10.	30.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	36 ##	0.05	0.14	0.9	0.04	0.029	0.171	0.05	0.05	0.2	0.33
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	37	0.03	0.044	0.17	0.005	0.001	0.038	0.01	0.02	0.06	0.11
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	33	0.97	1.195	2.9	0.21	0.472	0.687	0.504	0.635	1.655	2.34
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	37	0.5	0.566	1.5	0.2	0.104	0.323	0.28	0.4	0.65	1.14
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	24	0.1	0.125	0.3	0.05	0.007	0.086	0.05	0.063	0.1	0.3
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	24	0.04	0.066	0.29	0.005	0.007	0.083	0.01	0.02	0.068	0.255
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	35	8.	10.183	50.	4.	59.029	7.683	5.24	7.	11.	15.4
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	37	500.	2320.27	8000.	50.	8964647.147	2994.102	50.	75.	3700.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	37	2.699	2.75	3.903	1.699	0.752	0.867	1.699	1.849	3.568	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	562.25								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	60	9.5	10.293	22.	0.5	25.05	5.005	4.41	7.	14.375	17.77
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	42	266.	271.452	538.	145.	7000.4	83.668	176.1	224.25	294.75	390.
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	58	11.2	11.412	15.	7.1	2.606	1.614	9.7	10.275	12.45	14.
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	56	2.	3.036	15.	1.	7.053	2.656	1.	1.25	3.75	5.3
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	42	15.	17.643	95.	7.	199.016	14.107	8.	10.	20.	29.2
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	58	7.2	7.369	10.	6.2	0.656	0.81	6.5	6.8	7.793	8.077
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	58	7.2	6.961	10.	6.2	0.826	0.909	6.5	6.8	7.792	8.077
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	58	0.063	0.109	0.631	0.	0.017	0.131	0.009	0.016	0.158	0.316
00500	RESIDUE, TOTAL (MG/L)	05/27/74-02/21/89	19	200.	205.842	471.	117.	5788.585	76.083	118.	163.	237.	259.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/27/74-02/21/89	19	63.	63.368	102.	26.	650.468	25.504	31.	34.	85.	101.
00510	RESIDUE, TOTAL FIXED (MG/L)	05/27/74-02/21/89	19	120.	142.474	391.	86.	4333.263	65.828	92.	110.	158.	175.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	59	10.	37.644	800.	0.5	13025.087	114.128	2.5	5.	21.	48.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	59	4.	8.008	110.	0.5	240.065	15.494	1.	2.	8.	13.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	59	5.	29.475	690.	0.	9934.624	99.673	1.	2.5	15.	36.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	59	0.3	0.347	1.2	0.05	0.064	0.253	0.05	0.2	0.5	0.6
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	58	0.02	0.022	0.13	0.005	0.	0.021	0.005	0.01	0.03	0.05
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	54	1.385	1.413	2.5	0.09	0.31	0.557	0.605	1.065	1.882	2.15
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	59	0.6	0.798	6.	0.2	0.619	0.787	0.3	0.5	0.8	1.1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	41 ##	0.05	0.077	0.3	0.05	0.003	0.055	0.05	0.05	0.1	0.18
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	41	0.03	0.041	0.19	0.005	0.002	0.041	0.01	0.02	0.04	0.086
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	52	6.5	7.467	36.	0.5	26.758	5.173	3.72	5.	9.	12.4
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	55	700.	2083.636	8000.	50.	7412968.013	2722.677	50.	50.	3700.	7940.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	55	2.845	2.769	3.903	1.699	0.653	0.808	1.699	1.699	3.568	3.9
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	586.937								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0102

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/27/74-11/29/88	47	21.1	20.896	32.	3.	42.827	6.544	13.04	15.	26.1	30.2
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-02/21/89	26	235.	235.192	309.	158.	1174.002	34.264	193.5	213.75	257.75	283.5
00300	OXYGEN, DISSOLVED MG/L	05/27/74-11/29/88	47	9.4	9.447	12.	2.	2.654	1.629	7.96	8.9	10.5	11.04
00310	BOD, 5 DAY, 20 DEG C MG/L	03/24/75-02/21/89	42	3.	4.524	25.	1.	28.646	5.352	1.	2.	4.25	10.4
00340	COD, .25N K2CR2O7 MG/L	08/15/79-02/21/89	26	14.	20.462	136.	5.	642.978	25.357	6.	9.75	20.	37.3
00400	PH (STANDARD UNITS)	05/27/74-11/29/88	46	7.6	7.681	10.	4.5	1.273	1.128	6.47	6.8	8.88	9.
00400	CONVERTED PH (STANDARD UNITS)	05/27/74-11/29/88	46	7.589	6.086	10.	4.5	3.873	1.968	6.47	6.8	8.88	9.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/74-11/29/88	46	0.026	0.82	31.623	0.	21.696	4.658	0.001	0.001	0.158	0.341
00500	RESIDUE, TOTAL (MG/L)	05/27/74-02/21/89	19	188.	246.579	1086.	144.	45475.702	213.25	147.	161.	208.	426.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	05/27/74-02/21/89	19	55.	66.053	270.	34.	2671.053	51.682	36.	44.	66.	96.
00510	RESIDUE, TOTAL FIXED (MG/L)	05/27/74-02/21/89	19	129.	180.526	816.	76.	27713.041	166.472	86.	111.	163.	359.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/27/74-02/21/89	44	11.5	54.068	740.	0.5	16126.6	126.991	2.5	5.	25.5	161.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/27/74-02/21/89	45	5.	10.222	58.	0.	191.609	13.842	1.	2.25	12.	25.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	05/27/74-02/21/89	45	6.	43.711	682.	0.	13025.006	114.127	2.	3.	21.	135.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/27/74-11/29/88	45	0.2	0.393	3.799	0.05	0.407	0.638	0.05	0.05	0.4	0.78
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	45	0.05	0.057	0.4	0.005	0.004	0.062	0.01	0.02	0.07	0.104
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/27/74-11/29/88	37	1.39	1.332	2.5	0.08	0.366	0.605	0.442	0.95	1.8	2.119
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/27/74-11/29/88	42	0.6	1.021	8.099	0.2	1.673	1.294	0.4	0.4	1.2	2.02
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-11/29/88	23	0.1	0.113	0.4	0.05	0.011	0.105	0.05	0.05	0.1	0.36
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-11/29/88	26	0.02	0.032	0.19	0.01	0.001	0.037	0.01	0.01	0.04	0.063
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-02/21/89	43	8.	9.328	50.	2.	63.971	7.998	3.4	5.	9.	17.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	44	750.	2268.182	8000.	50.	9254778.013	3042.167	50.	100.	3200.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	05/27/74-02/21/89	44	2.874	2.795	3.903	1.699	0.65	0.806	1.699	2.	3.504	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	624.144								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0103

NPS Station ID: RICH0103  
 Location: RT. 5 BRIDGE WILLIAMSBURG RD.  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206046  
 RF3 Index: 02080206142000.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD  
 RIVER: GILLIE CREEK

LAT/LON: 37.523059/ -77.417226

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-GIL000.03 /VA2-02-X0084/VA2-4X0084  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 6.560  
 RF3 Mile Point: 0.35

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.01

On/Off RF1: ON  
 On/Off RF3:

AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 SECTION: 02 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

### Parameter Inventory for Station: RICH0103

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/26/72-07/21/74	16	12.75	14.675	27.2	5.	44.923	6.702	6.19	10.275	18.75	27.2
00300	OXYGEN, DISSOLVED MG/L	09/26/72-07/21/74	16	9.2	8.694	12.6	5.	4.405	2.099	5.7	6.85	10.225	11.48
00310	BOD, 5 DAY, 20 DEG C MG/L	04/18/73-10/19/73	2	10.6	10.6	15.2	6.	42.32	6.505	**	**	**	**
00400	PH (STANDARD UNITS)	09/26/72-07/21/74	16	7.	7.256	10.	6.7	0.976	0.988	6.7	6.8	7.	9.65
00400	CONVERTED PH (STANDARD UNITS)	09/26/72-07/21/74	16	7.	6.934	10.	6.7	1.087	1.043	6.7	6.8	7.	9.65
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/26/72-07/21/74	16	0.1	0.116	0.2	0.	0.004	0.062	0.	0.1	0.158	0.2
00500	RESIDUE, TOTAL (MG/L)	09/26/72-07/21/74	15	200.	216.733	393.	155.	3236.495	56.89	161.6	189.	231.	318.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/26/72-07/21/74	15	48.	58.8	201.	7.	2069.457	45.491	21.4	33.	57.	142.8
00510	RESIDUE, TOTAL FIXED (MG/L)	09/26/72-07/21/74	15	141.	134.267	362.	16.	6624.638	81.392	20.8	97.	158.	261.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/26/72-07/21/74	15	24.	50.2	194.	10.	2570.314	50.698	14.8	20.	82.	141.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/26/72-07/21/74	15	7.	12.933	60.	2.	217.495	14.748	2.	4.	19.	37.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	09/26/72-07/21/74	15	20.	37.267	174.	1.	2052.924	45.309	7.6	12.	41.	121.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/27/72-07/21/74	14	0.94	1.646	4.899	0.36	2.089	1.445	0.43	0.5	2.625	4.399
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	11/27/72-07/21/74	14	0.03	0.069	0.2	0.005	0.007	0.083	0.005	0.01	0.19	0.2
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	11/27/72-07/21/74	14	1.249	1.381	2.509	0.9	0.219	0.468	0.935	0.99	1.712	2.194
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/27/72-07/21/74	14	2.2	2.714	7.	1.	2.899	1.703	1.1	1.399	3.575	5.95
01034	CHROMIUM, TOTAL (UG/L AS CR)	10/26/72-01/29/73	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	10/26/72-01/29/73	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	10/26/72-01/29/73	2	10.	10.	10.	10.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-01/29/73	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	10/26/72-01/29/73	2 ##	27.5	27.5	50.	5.	1012.5	31.82	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-07/21/74	16	6000.	8521.875	60000.	50.	200370322.917	14155.222	365.	2875.	6000.	28500.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	09/26/72-07/21/74	16	3.778	3.578	4.778	1.699	0.458	0.677	2.399	3.458	3.778	4.357
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	3784.593								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	11/27/72-07/21/74	14	0.55	0.868	3.	0.05	0.705	0.84	0.075	0.3	1.15	2.6
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	11/27/72-07/21/74	14	0.325	0.534	1.799	0.05	0.3	0.548	0.05	0.175	0.725	1.65
71900	MERCURY, TOTAL (UG/L AS HG)	10/26/72-01/29/73	2 ##	0.25	0.25	0.25	0.25	0.25	0.	0.	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0103

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	16	0	0.00	4	0	0.00	8	0	0.00	4	0	0.00			
00400 PH	Fresh Chronic	9.	16	2	0.13	4	1	0.25	8	1	0.13	4	0	0.00			
	Other-Lo Lim.	6.5	16	0	0.00	4	0	0.00	8	0	0.00	4	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	14	0	0.00	3	0	0.00	7	0	0.00	4	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	14	0	0.00	3	0	0.00	7	0	0.00	4	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	2	0	0.00				2	0	0.00						
01042 COPPER, TOTAL	Fresh Acute	18.	2	0	0.00				2	0	0.00						
	Drinking Water	1300.	2	0	0.00				2	0	0.00						
01051 LEAD, TOTAL	Fresh Acute	82.	2	0	0.00				2	0	0.00						
	Drinking Water	15.	2	0	0.00				2	0	0.00						
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00				1	0	0.00						
	Drinking Water	100.	1	0	0.00				1	0	0.00						
01092 ZINC, TOTAL	Fresh Acute	120.	2	0	0.00				2	0	0.00						
	Drinking Water	5000.	2	0	0.00				2	0	0.00						
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	16	15	0.94	4	4	1.00	8	7	0.88	4	4	1.00			
71900 MERCURY, TOTAL	Fresh Acute	2.4	2	0	0.00				2	0	0.00						
	Drinking Water	2.	2	0	0.00				2	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0104

NPS Station ID: RICH0104

Location: REEDY CREEK, RIVERSIDE DRIVE, RICHMOND

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080205

Major Basin: 02-NORTH ATLANTIC

Minor Basin: 2-JAMES

RF1 Index: 02080205

RF3 Index: 02080206000501.22

Description:

VIRGINIA STATE WATER CONTROL BOARD

RIVER: REEDY CREEK

AMBIENT MONITORING SECTION: 08

BASIN: 2- JAMES TOPO MAP #: 0131

TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.523059/ -77.471115

Agency: 21VASWCB

FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)

STORET Station ID(s): 2-RDD000.19

Within Park Boundary: No

Date Created: 06/04/94

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

### Parameter Inventory for Station: RICH0104

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/20/94-11/23/98	20	15.15	15.335	27.6	3.8	57.621	7.591	5.06	8.325	21.9	26.87
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/20/94-11/23/98	20	5.	6.265	19.	1.9	20.632	4.542	2.01	2.8	8.4	13.76
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/19/95-11/23/98	18	157.5	173.778	531.	84.	8925.948	94.477	105.6	139.5	174.75	246.6
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/20/94-11/23/98	20	155.5	166.	468.	115.	5577.053	74.68	117.5	132.	173.5	197.8
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/20/94-11/23/98	20	9.1	9.275	16.2	5.1	7.789	2.791	5.68	7.325	11.35	13.13
00310 BOD, 5 DAY, 20 DEG C MG/L	07/20/94-11/23/98	20	1.3	1.71	4.	0.5	1.088	1.043	0.5	1.	2.75	3.18
00340 COD, 25N K2CR2O7 MG/L	07/20/94-11/23/98	20	20.	19.65	33.	5.	43.187	6.572	10.3	15.5	21.	31.6
00400 PH(STANDARD UNITS)	07/20/94-11/23/98	20	6.89	6.901	7.11	6.44	0.027	0.165	6.685	6.85	7.065	7.099
00400 CONVERTED PH(STANDARD UNITS)	07/20/94-11/23/98	20	6.89	6.867	7.11	6.44	0.028	0.168	6.685	6.85	7.065	7.099
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/20/94-11/23/98	20	0.129	0.136	0.363	0.078	0.004	0.064	0.08	0.086	0.141	0.207
00403 PH, LAB, STANDARD UNITS SU	07/20/94-11/23/98	20	6.8	6.87	7.7	6.4	0.101	0.318	6.5	6.7	6.975	7.3
00403 CONVERTED PH, LAB, STANDARD UNITS	07/20/94-11/23/98	20	6.8	6.781	7.7	6.4	0.11	0.331	6.5	6.7	6.975	7.3
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/20/94-11/23/98	20	0.158	0.166	0.398	0.02	0.009	0.097	0.05	0.106	0.2	0.316
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	07/20/94-11/23/98	20	31.5	29.95	41.	19.	44.892	6.7	21.	22.5	34.75	38.
00500 RESIDUE, TOTAL (MG/L)	07/20/94-11/23/98	20	113.5	114.	276.	78.	1653.579	40.664	81.5	91.5	116.75	124.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	07/20/94-11/23/98	20	33.	33.3	48.	13.	62.326	7.895	22.6	29.	38.5	43.
00510 RESIDUE, TOTAL FIXED (MG/L)	07/20/94-11/23/98	20	76.5	80.7	228.	52.	1357.8	36.848	52.4	58.75	83.75	88.9
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/20/94-11/23/98	20	4.5	4.325	13.	1.5	8.507	2.917	1.5	1.5	6.	7.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/20/94-11/23/98	20 ##	1.5	1.5	1.5	0.	0.	0.	1.5	1.5	1.5	1.5
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/20/94-11/23/98	20 ##	2.25	3.1	11.	1.5	5.226	2.286	1.5	1.5	4.	5.
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/20/94-11/23/98	20 ##	0.02	0.052	0.33	0.02	0.005	0.071	0.02	0.02	0.058	0.116
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	07/20/94-11/23/98	20	0.01	0.02	0.05	0.	0.	0.016	0.005	0.01	0.035	0.049
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	07/20/94-11/23/98	20	0.645	0.627	1.06	0.14	0.057	0.238	0.332	0.428	0.833	0.919
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/20/94-11/23/98	20	0.5	0.605	1.8	0.3	0.131	0.362	0.3	0.425	0.6	1.18
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/20/94-11/23/98	20	0.075	0.074	0.13	0.03	0.001	0.025	0.04	0.053	0.09	0.1
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/20/94-07/10/96	8	7.4	8.713	13.1	5.6	7.238	2.69	**	**	**	**
00687 CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	04/19/95-04/19/95	1	1.14	1.14	1.14	1.14	0.	0.	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	07/20/94-11/23/98	20	40.5	41.1	56.	30.	58.305	7.636	30.2	36.	47.5	53.6
00940 CHLORIDE, TOTAL IN WATER MG/L	07/20/94-11/23/98	20	14.5	19.2	107.	8.	444.905	21.093	9.2	11.	17.75	26.1
00945 SULFATE, TOTAL (MG/L AS SO4)	07/20/94-11/23/98	20	12.	12.125	19.	2.5	15.26	3.906	7.1	10.	14.75	17.8
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS DRY WGT)	04/19/95-04/19/95	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01013 BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	04/19/95-04/19/95	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01028 CADMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	04/19/95-04/19/95	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0104

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
0029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	04/19/95-04/19/95	1	5.	5.	5.	5.	0.	0.	**	**	**	**
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	04/19/95-04/19/95	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	04/19/95-04/19/95	1	11.	11.	11.	11.	0.	0.	**	**	**	**
01053 MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	04/19/95-04/19/95	1	80.	80.	80.	80.	0.	0.	**	**	**	**
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	04/19/95-04/19/95	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01078 SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	04/19/95-04/19/95	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	04/19/95-04/19/95	1	36.	36.	36.	36.	0.	0.	**	**	**	**
01098 ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS Sb DRY WGT)	04/19/95-04/19/95	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01108 ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS Al DRY WGT)	04/19/95-04/19/95	1	3370.	3370.	3370.	3370.	0.	0.	**	**	**	**
01148 SELENIUM IN BOTTOM DEPOSITS (MG/KG AS Se DRY WGT)	04/19/95-04/19/95	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01170 IRON IN BOTTOM DEPOSITS (MG/KG AS Fe DRY WGT)	04/19/95-04/19/95	1	5220.	5220.	5220.	5220.	0.	0.	**	**	**	**
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/20/94-11/23/98	18	640.	2101.833	16000.	45.	16637749.912	4078.94	74.7	197.5	1400.	9880.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/20/94-11/23/98	18	2.794	2.798	4.204	1.653	0.47	0.685	1.868	2.285	3.143	3.988
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				GEOMETRIC MEAN =	628.051							
31616 FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/24/94-04/19/95	2	550.	550.	900.	200.	245000.	494.975	**	**	**	**
31616 LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	10/24/94-04/19/95	2	2.628	2.628	2.954	2.301	0.213	0.462	**	**	**	**
31616 GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	424.264							
34480 THALLIUM DRY WGTBOTMG/KG	04/19/95-04/19/95	1##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39061 PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	04/19/95-04/19/95	1##	33.	33.	33.	33.	0.	0.	**	**	**	**
39333 ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	1##	22.5	22.5	22.5	22.5	0.	0.	**	**	**	**
39351 CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	04/19/95-04/19/95	1##	35.	35.	35.	35.	0.	0.	**	**	**	**
39363 DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	1##	20.	20.	20.	20.	0.	0.	**	**	**	**
39368 DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	1##	20.5	20.5	20.5	20.5	0.	0.	**	**	**	**
39373 DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	1##	18.	18.	18.	18.	0.	0.	**	**	**	**
39383 DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	04/19/95-04/19/95	1##	22.	22.	22.	22.	0.	0.	**	**	**	**
39393 ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	1##	35.	35.	35.	35.	0.	0.	**	**	**	**
39403 TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	04/19/95-04/19/95	1##	105.	105.	105.	105.	0.	0.	**	**	**	**
39413 HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	04/19/95-04/19/95	1##	18.5	18.5	18.5	18.5	0.	0.	**	**	**	**
39526 PCB'S TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	04/19/95-04/19/95	1##	53.	53.	53.	53.	0.	0.	**	**	**	**
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/20/94-11/23/98	20	0.05	0.048	0.08	0.005	0.	0.022	0.012	0.03	0.07	0.07
71921 MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	04/19/95-04/19/95	1##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
75045 HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	04/19/95-04/19/95	1##	22.	22.	22.	22.	0.	0.	**	**	**	**
79799 DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	04/19/95-04/19/95	1##	33.	33.	33.	33.	0.	0.	**	**	**	**
82007 PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	04/19/95-04/19/95	1	99.	99.	99.	99.	0.	0.	**	**	**	**
82008 SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	04/19/95-04/19/95	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
82009 SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	04/19/95-04/19/95	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**

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### EPA Water Quality Criteria Analysis for Station: RICH0104

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	20	0	0.00	8	0	0.00	7	0	0.00	5	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	20	0	0.00	8	0	0.00	7	0	0.00	5	0	0.00			
00400 PH	Fresh Chronic	9.	20	0	0.00	8	0	0.00	7	0	0.00	5	0	0.00			
00403 PH, LAB	Other-Lo Lim.	6.5	20	1	0.05	8	0	0.00	7	1	0.14	5	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Fresh Chronic	9.	20	0	0.00	8	0	0.00	7	0	0.00	5	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	1.	20	0	0.00	8	0	0.00	7	0	0.00	5	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Other-Lo Lim.	6.5	20	3	0.15	8	2	0.25	7	0	0.00	5	1	0.20			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	20	0	0.00	8	0	0.00	7	0	0.00	5	0	0.00			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	18	14	0.78	8	7	0.88	6	4	0.67	4	3	0.75			
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	2	1.00				1	1	1.00	1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0105

NPS Station ID: RICH0105

LAT/LON: 37.523337/ -77.421116

Location: ROCK OFF LONE STAR CEMENT CO., DOCK ST.RICHMOND

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080205

Depth of Water: 0

Major Basin: 02-NORTH ATLANTIC

Elevation: 0

Minor Basin: 2-JAMES

RF1 Mile Point: 0.000

RF1 Index: 02080205

RF3 Mile Point: 1.21

RF3 Index: 02080205000100.61

Description:

VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 815102 BASIN: 2 JAMES  
RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB

FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)

STORET Station ID(s): 2-JMS109.39

Within Park Boundary: No

Date Created: 06/11/83

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.60

Distance from RF3: 0.03

On/Off RF1:

On/Off RF3:

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0105

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	121	24.8	23.136	31.7	.5	33.927	5.825	15.5	19.55	27.75	29.4
00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/06/71-07/16/80	4	8.5	12.5	30.5	2.5	153.5	12.39	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	11	3.4	6.455	16	1.5	23.993	4.898	1.6	2.4	10.7	15.2
00078	TRANSPARENCY, SECCHI DISC (METERS)	11/18/82-11/18/82	1	1.5	1.5	1.5	1.5	0	0	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/19/80-10/26/98	58	196	209.121	392	105	3888.389	62.357	136.9	161.5	251.75	295.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	11	190	193.273	276	122	3008.218	54.847	123.8	136	251	273.6
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0	0	0	0	0	0	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	50	8.45	8.728	10.7	7.5	0.751	0.867	7.71	8.075	9.425	10.09
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	72	8.15	8.501	14.6	4.1	2.983	1.727	6.8	7.425	8.975	11.34
00310	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/01/95	49	1	1.467	8	0.5	1.511	1.229	0.5	1	2	2.1
00340	COD, .25N K2CR207 MG/L	07/22/74-06/28/83	13	11	12.769	31	4	65.526	8.095	4.4	7	15.5	29.4
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	123	7.86	7.897	9.5	6.8	0.304	0.552	7.3	7.5	8.18	8.8
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	123	7.86	7.623	9.5	6.8	0.38	0.616	7.3	7.5	8.18	8.8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	123	0.014	0.024	0.158	0	0.001	0.028	0.002	0.007	0.032	0.05
00403	PH, LAB, STANDARD UNITS SU	03/20/69-06/01/95	17	7.4	7.335	7.9	6.5	0.209	0.457	6.5	7	7.7	7.82
00403	CONVERTED PH, LAB, STANDARD UNITS	03/20/69-06/01/95	17	7.4	7.093	7.9	6.5	0.271	0.521	6.5	7	7.7	7.82
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/20/69-06/01/95	17	0.04	0.081	0.316	0.013	0.009	0.097	0.015	0.02	0.1	0.316
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/20/69-06/01/95	17	44	44.294	73	22	240.346	15.503	22	31	57	67.4
00480	SALINITY - PARTS PER THOUSAND	11/18/82-11/18/82	1	0	0	0	0	0	0	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	44	123	155.023	1134	82	24786.999	157.439	98	106.5	142.75	180
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	44	36.5	53.159	613	15	7863.997	88.679	18	26.25	47	78
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	44	85.5	102	521	12	5967.07	77.247	43.5	74.5	109	154
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/27/81-07/27/81	1	120	120	120	120	0	0	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/01/95	62	10	19.661	233	0	1236.572	35.165	1.5	4	18	36
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/01/95	61	3	6.303	80	0	126.669	11.255	1	1.5	8	13.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/01/95	62	6.5	15.194	195	0	913.552	30.225	1.15	2.5	14	29.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	76 ##	0.05	0.064	0.5	0.01	0.006	0.076	0.02	0.04	0.05	0.123
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	77 ##	0.005	0.011	0.13	0.005	0	0.017	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	77	0.26	0.316	1.739	0.005	0.115	0.339	0.02	0.055	0.4	0.708
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	77	0.3	0.34	1.599	0.05	0.075	0.274	0.1	0.2	0.4	0.8
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/19/80-06/01/95	23	0.07	0.075	0.15	0.04	0.001	0.028	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	05/19/80-06/28/83	12	0.05	0.052	0.1	0.01	0.001	0.031	0.01	0.025	0.082	0.1
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/22/74-07/14/94	34	6	7.335	51	3	63.519	7.97	3.7	4.75	7	9.5

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00940	CHLORIDE,TOTAL IN WATER MG/L	07/08/72-06/01/95	46	9.	9.543	22.	2.	25.231	5.023	4.7	6.	11.25	18.6
00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	10	19.	21.	35.	11.	89.111	9.44	11.	11.75	31.75	34.9
01002	ARSENIC, TOTAL (UG/L AS AS)	06/13/71-10/28/82	5 ##	1.	1.5	2.5	0.5	0.875	0.935	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/02/72-10/28/82	6 ##	5.	5.083	10.	0.5	9.042	3.007	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/21/70-10/28/82	14 ##	5.	5.464	10.	0.5	12.133	3.483	0.5	3.875	10.	10.
01042	COPPER, TOTAL (UG/L AS CU)	04/21/70-10/28/82	14 ##	5.	16.429	100.	5.	640.11	25.3	5.	5.	20.	65.
01051	LEAD, TOTAL (UG/L AS PB)	06/13/71-10/28/82	12	6.	11.333	55.	1.	217.152	14.736	1.3	4.25	13.	44.5
01055	MANGANESE, TOTAL (UG/L AS MN)	04/21/70-04/21/70	1	10.	10.	10.	0.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/03/73-05/22/78	4 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	11/16/81-10/28/82	4 ##	30.	33.75	70.	5.	989.583	31.458	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/21/70-10/28/82	14 ##	7.5	16.071	80.	5.	481.456	21.942	5.	5.	12.5	65.
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-05/04/76	15	11000.	195710.667	1100000.	430.146696820292.381	383010.209	730.	4300.	110000.	1100000.	
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	07/22/68-05/04/76	15	4.041	4.322	6.041	2.633	1.106	1.051	2.834	3.633	5.041	6.041
31505	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)				20998.574								
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	53	400.	2751.019	16000.	9.	23981327.865	4897.073	72.	110.	1950.	13280.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	53	2.602	2.748	4.204	0.954	0.677	0.823	1.856	2.041	3.286	4.108
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				559.369								
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	56	100.	722.857	8000.	50.	2207657.143	1485.819	50.	50.	557.5	2360.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/06/71-06/28/83	56	2.	2.299	3.903	1.699	0.422	0.649	1.699	1.699	2.742	3.362
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C				199.198								
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/82-10/28/82	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	05/06/71-06/13/71	2	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	06/13/71-10/28/82	3	0.	0.033	0.1	0.	0.003	0.058	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/01/75-05/01/75	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-04/24/79	54 ##	0.05	0.077	0.7	0.025	0.01	0.1	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	65	0.04	0.042	0.1	0.01	0.001	0.023	0.01	0.03	0.05	0.084
71900	MERCURY, TOTAL (UG/L AS HG)	09/09/70-10/28/82	14 ##	0.25	0.246	0.6	0.15	0.012	0.112	0.15	0.15	0.25	0.425

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0105

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	4	0	0.00	2	0	0.00	2	0	0.00	3	0	0.00			
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	11	0	0.00	7	0	0.00	1	0	0.00	15	0	0.00			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	50	0	0.00	30	0	0.00	5	0	0.00	24	0	0.00			
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	72	0	0.00	38	0	0.00	10	0	0.00	39	5	0.13			
00400	PH	Fresh Chronic	9.	123	10	0.08	69	4	0.06	15	1	0.07	39	0	0.00			
		Other-Lo Lim.	6.5	123	0	0.00	69	0	0.00	15	0	0.00	39	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	17	0	0.00	8	0	0.00	2	0	0.00	7	0	0.00			
		Other-Lo Lim.	6.5	17	2	0.12	8	2	0.25	2	0	0.00	7	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	77	0	0.00	40	0	0.00	11	0	0.00	26	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	77	0	0.00	40	0	0.00	11	0	0.00	26	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	46	0	0.00	26	0	0.00	5	0	0.00	15	0	0.00			
		Drinking Water	250.	46	0	0.00	26	0	0.00	5	0	0.00	15	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	10	0	0.00	6	0	0.00	1	0	0.00	3	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	5	0	0.00				1	0	0.00	4	0	0.00			
		Drinking Water	50.	5	0	0.00				1	0	0.00	4	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2 &	1	0.50				1	0	0.00	1	1	1.00			
		Drinking Water	5.	2 &	1	0.50				1	0	0.00	1	1	1.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	14	0	0.00	3	0	0.00	2	0	0.00	9	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	14	4	0.29	3	0	0.00	2	1	0.50	9	3	0.33			
		Drinking Water	1300.	14	0	0.00	3	0	0.00	2	0	0.00	9	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	12	0	0.00	3	0	0.00	2	0	0.00	7	0	0.00			
		Drinking Water	15.	12	2	0.17	3	0	0.00	2	0	0.00	7	2	0.29			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	4	0	0.00							4	0	0.00			
		Drinking Water	100.	4	0	0.00							4	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00				2	0	0.00	2	0	0.00			
		Drinking Water	100.	4	0	0.00				2	0	0.00	2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0105

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01092	ZINC, TOTAL	Fresh Acute	120.	14	0	0.00	3	0	0.00	2	0	0.00	9	0	0.00			
		Drinking Water	5000.	14	0	0.00	3	0	0.00	2	0	0.00	9	0	0.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	15	13	0.87	8	8	1.00	1	1	1.00	6	4	0.67			
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	53	36	0.68	32	21	0.66	5	2	0.40	16	13	0.81			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	56	24	0.43	29	14	0.48	8	5	0.63	19	5	0.26			
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	2	0	0.00				1	0	0.00	1	0	0.00			
39380	DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	2	0	0.00							2	0	0.00			
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	3	0	0.00				1	0	0.00	2	0	0.00			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	14	0	0.00	4	0	0.00	2	0	0.00	8	0	0.00			
		Drinking Water	2.	14	0	0.00	4	0	0.00	2	0	0.00	8	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1968 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	2	28.65	28.65	31.7	25.6	18.605	4.313	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	2	8.	8.	8.	8.	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	2	8.	8.	8.	8.	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	2	0.01	0.01	0.01	0.01	0.01	0.	0.	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	3	22.2	19.833	25.6	11.7	52.503	7.246	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	3	7.2	7.067	7.2	6.8	0.053	0.231	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	3	7.2	7.023	7.2	6.8	0.056	0.237	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	3	0.063	0.095	0.158	0.063	0.003	0.055	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	9	26.7	22.9	31.1	5.	67.503	8.216	5.	17.5	28.05	31.1
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	9	7.3	7.411	8.2	6.8	0.171	0.414	6.8	7.2	7.7	8.2
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	9	7.3	7.268	8.2	6.8	0.194	0.441	6.8	7.2	7.7	8.2
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	9	0.05	0.054	0.158	0.006	0.002	0.044	0.006	0.022	0.063	0.158

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	7	22.8	23.329	30.	17.2	24.239	4.923	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	7	7.5	7.6	8.3	7.	0.207	0.455	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	7	7.5	7.426	8.3	7.	0.242	0.492	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	7	0.032	0.038	0.1	0.005	0.001	0.033	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	7	23.9	22.943	26.7	17.2	14.19	3.767	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	8	7.85	7.813	8.3	7.3	0.133	0.364	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	8	7.825	7.687	8.3	7.3	0.151	0.388	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	8	0.015	0.021	0.05	0.005	0.	0.016	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	5	27.2	25.98	29.4	17.8	22.952	4.791	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	5	8.	8.06	9.	7.3	0.368	0.607	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	5	8.	7.79	9.	7.3	0.459	0.678	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	5	0.01	0.016	0.05	0.001	0.	0.019	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	7	27.8	25.171	29.	16.1	23.709	4.869	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	7	8.	7.986	8.5	7.6	0.075	0.273	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	7	8.	7.92	8.5	7.6	0.08	0.282	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	7	0.01	0.012	0.025	0.003	0.	0.007	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	8	27.2	25.538	30.	17.2	21.877	4.677	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	9	8.	8.211	9.	7.5	0.366	0.605	7.5	7.6	8.85	9.
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	9	8.	7.911	9.	7.5	0.467	0.683	7.5	7.6	8.85	9.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	9	0.01	0.012	0.032	0.001	0.	0.013	0.001	0.001	0.026	0.032

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	4	14.8	14.5	22.8	5.6	61.187	7.822	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	4	7.6	7.925	9.	7.5	0.523	0.723	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	4	7.589	7.677	9.	7.5	0.605	0.778	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	4	0.026	0.021	0.032	0.001	0.	0.014	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	6	26.	22.917	30.	7.	69.442	8.333	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	6	8.85	8.567	9.5	7.5	0.631	0.794	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	6	8.825	8.031	9.5	7.5	0.975	0.988	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	6	0.001	0.009	0.032	0.	0.	0.013	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	1	8.8	8.8	8.8	8.8	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	1	8.8	8.8	8.8	8.8	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	1	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1980 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	3	23.	23.833	31.5	17.	53.083	7.286	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	3	9.	8.833	9.	8.5	0.083	0.289	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	3	9.	8.764	9.	8.5	0.09	0.301	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	3	0.001	0.002	0.003	0.001	0.	0.001	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	3	25.	21.333	29.	10.	100.333	10.017	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	3	8.1	8.267	8.8	7.9	0.223	0.473	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	3	8.1	8.132	8.8	7.9	0.25	0.5	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	3	0.008	0.007	0.013	0.002	0.	0.006	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	4	17.5	17.875	28.	8.5	77.063	8.779	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	4	8.35	8.375	9.3	7.5	0.676	0.822	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	4	8.15	7.936	9.3	7.5	0.932	0.966	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	4	0.007	0.012	0.032	0.001	0.	0.014	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	1	29.5	29.5	29.5	29.5	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	1	8.5	8.5	8.5	8.5	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	1	8.5	8.5	8.5	8.5	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	07/22/68-10/26/98	1	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	9	25.4	24.167	29.6	16.3	24.52	4.952	16.3	19.35	28.5	29.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	8.3	8.767	10.7	7.9	0.915	0.957	7.9	8.	9.5	10.7
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	9	8.04	8.011	8.39	7.55	0.083	0.289	7.55	7.785	8.28	8.39
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	9	8.04	7.927	8.39	7.55	0.091	0.302	7.55	7.785	8.28	8.39
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	9	0.009	0.012	0.028	0.004	0.	0.008	0.004	0.005	0.016	0.028
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	110.	1217.	9200.	45.	9017012.	3002.834	45.	73.	565.	9200.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	2.041	2.349	3.964	1.653	0.518	0.72	1.653	1.862	2.715	3.964
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		223.164							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	8	23.3	22.513	29.5	15.1	26.178	5.116	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	8	8.65	8.887	10.3	7.7	0.827	0.909	**	**	**	**
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	8	7.565	7.674	8.29	7.33	0.116	0.341	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	8	7.565	7.578	8.29	7.33	0.127	0.356	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	8	0.027	0.026	0.047	0.005	0.	0.016	**	**	**	**
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	640.	2921.111	16000.	220.	26881336.111	5184.721	220.	230.	3800.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	9	2.806	2.958	4.204	2.342	0.462	0.68	2.342	2.362	3.537	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		908.227							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	12	21.45	22.008	27.9	15.1	18.683	4.322	15.34	18.875	26.375	27.75
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.8	8.975	10.2	8.	0.6	0.775	8.03	8.4	9.825	10.11
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	12	7.555	7.661	8.55	6.87	0.199	0.446	6.999	7.368	7.93	8.439
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	12	7.554	7.472	8.55	6.87	0.237	0.487	6.999	7.368	7.93	8.439
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	12	0.028	0.034	0.135	0.003	0.001	0.035	0.004	0.012	0.043	0.109
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	365.	3174.667	16000.	40.	36390659.697	6032.467	41.5	81.75	2075.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	2.56	2.692	4.204	1.602	0.845	0.919	1.617	1.911	3.314	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		491.692							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	10	22.45	22.85	28.2	14.	20.752	4.555	14.46	20.4	26.95	28.15
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	9	8.4	8.511	10.4	7.5	1.031	1.015	7.5	7.65	9.3	10.4
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	10	7.64	7.64	8.03	7.38	0.054	0.233	7.381	7.405	7.868	8.016
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	10	7.64	7.588	8.03	7.38	0.057	0.239	7.381	7.405	7.868	8.016
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	10	0.023	0.026	0.042	0.009	0.	0.012	0.01	0.014	0.039	0.042
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	330.	1651.545	9200.	9.	8696893.873	2949.05	22.8	110.	1500.	8440.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	11	2.519	2.57	3.964	0.954	0.736	0.858	1.142	2.041	3.176	3.918
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		371.549							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	12	26.3	25.092	29.1	15.5	16.95	4.117	16.76	22.925	28.4	29.01
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/28/94-10/26/98	12	8.4	8.508	10.	7.6	0.626	0.791	7.6	7.8	9.175	9.85
00400	PH (STANDARD UNITS)	07/22/68-10/26/98	12	7.915	7.88	8.45	7.02	0.135	0.368	7.179	7.69	8.157	8.372
00400	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	12	7.914	7.705	8.45	7.02	0.169	0.411	7.179	7.69	8.157	8.372
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	12	0.012	0.02	0.095	0.004	0.001	0.025	0.004	0.007	0.02	0.075
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	1300.	4358.167	16000.	78.	36790062.152	6065.481	105.6	250.	8250.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/28/94-10/26/98	12	3.114	3.108	4.204	1.892	0.628	0.792	1.994	2.345	3.906	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		1282.365							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	68	26.8	25.846	31.7	15.1	13.053	3.613	20.	24.025	28.275	29.51
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-10/26/98	32	222.5	223.938	341.	141.	3350.19	57.881	150.	177.5	275.75	300.5
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	38	7.85	7.821	11.2	4.1	1.485	1.219	6.36	7.275	8.3	9.08
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/01/95	20	1.	1.325	8.	0.5	2.718	1.649	0.5	0.5	1.	2.
00400p	PH (STANDARD UNITS)	07/22/68-10/26/98	69	7.87	7.911	9.	6.8	0.227	0.477	7.35	7.565	8.11	8.7
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	69	7.87	7.691	9.	6.8	0.276	0.526	7.35	7.565	8.11	8.7
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	69	0.013	0.02	0.158	0.001	0.001	0.024	0.002	0.008	0.027	0.045
00500p	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	17	137.	147.647	360.	98.	3776.118	61.45	100.4	120.	142.5	247.2
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	17	37.	40.118	105.	15.	504.985	22.472	15.	25.	46.	83.4
00510p	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	17	92.	113.412	255.	42.	2737.257	52.319	65.2	83.	128.5	210.2
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/01/95	30	8.5	23.933	233.	0.5	2034.823	45.109	1.5	4.75	20.5	64.5
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/01/95	30	2.	4.917	38.	0.	56.312	7.504	0.55	1.	6.	14.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/01/95	30	6.5	19.2	195.	0.5	1445.959	38.026	1.5	3.	14.5	55.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	38 ##	0.05	0.068	0.5	0.01	0.007	0.084	0.02	0.02	0.05	0.152
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	40 ##	0.008	0.014	0.13	0.005	0.001	0.023	0.005	0.005	0.01	0.029
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	40	0.255	0.325	1.329	0.005	0.118	0.343	0.011	0.045	0.42	0.879
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	40	0.3	0.337	1.099	0.05	0.065	0.254	0.055	0.2	0.4	0.78
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/22/74-07/14/94	14	6.	6.529	12.	3.	7.142	2.672	3.2	4.	9.	11.
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-06/01/95	26	9.	10.462	22.	2.	29.538	5.435	4.7	6.75	12.25	21.3
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	29	100.	558.621	3600.	50.	844476.601	918.954	50.	50.	700.	1900
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	29	2.	2.303	3.556	1.699	0.375	0.613	1.699	1.699	2.841	3.279
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			200.807								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-04/24/79	29 ##	0.05	0.09	0.7	0.05	0.018	0.135	0.05	0.05	0.05	0.1
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	36	0.04	0.043	0.1	0.01	0.	0.021	0.017	0.03	0.05	0.069

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	15	14.	12.647	18.9	5.	20.503	4.528	5.36	8.5	16.1	17.82
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-10/26/98	9	200.	233.556	392.	105.	6979.278	83.542	105.	183.5	284.5	392.
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	10	11.6	11.	12.2	8.8	1.68	1.296	8.82	9.75	12.	12.18
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/01/95	8	2.	1.725	3.3	0.5	0.762	0.873	**	**	**	**
00400p	PH (STANDARD UNITS)	07/22/68-10/26/98	15	7.7	7.741	9.	7.	0.224	0.474	7.18	7.5	8.	8.496
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	15	7.7	7.561	9.	7.	0.259	0.509	7.18	7.5	8.	8.496
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	15	0.02	0.027	0.1	0.001	0.001	0.025	0.005	0.01	0.032	0.07
00500p	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	9	113.	126.889	164.	101.	566.611	23.804	101.	109.	152.5	164.
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	9	32.	33.333	47.	18.	111.25	10.548	18.	25.	45.5	47.
00510p	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	9	85.	93.556	129.	66.	474.278	21.778	66.	77.	115.	129.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/01/95	10 ##	5.25	8.45	32.	0.5	91.136	9.547	0.6	2.25	11.25	30.3
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/01/95	10 ##	4.25	12.15	80.	0.5	579.669	24.076	0.6	2.25	10.	73.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/01/95	10 ##	2.25	4.45	24.	0.	53.803	7.335	0.	0.375	4.125	22.5
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.05	0.082	0.44	0.02	0.014	0.119	0.024	0.05	0.05	0.362
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.005	0.01	0.03	0.005	0.	0.008	0.005	0.005	0.01	0.028
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.16	0.205	0.43	0.01	0.029	0.17	0.012	0.025	0.38	0.43
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	11	0.3	0.3	0.8	0.1	0.034	0.184	0.12	0.2	0.3	0.72
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/22/74-07/14/94	7	7.	6.143	8.	4.	2.143	1.464	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-06/01/95	5	9.	11.2	18.	5.	35.2	5.933	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	8	650.	2181.25	8000.	50.	9599241.071	3098.264	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	8	2.671	2.678	3.903	1.699	0.893	0.945	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			476.103								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-04/24/79	6 ##	0.05	0.067	0.1	0.05	0.001	0.026	**	**	**	**
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	7	0.04	0.046	0.09	0.02	0.001	0.024	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

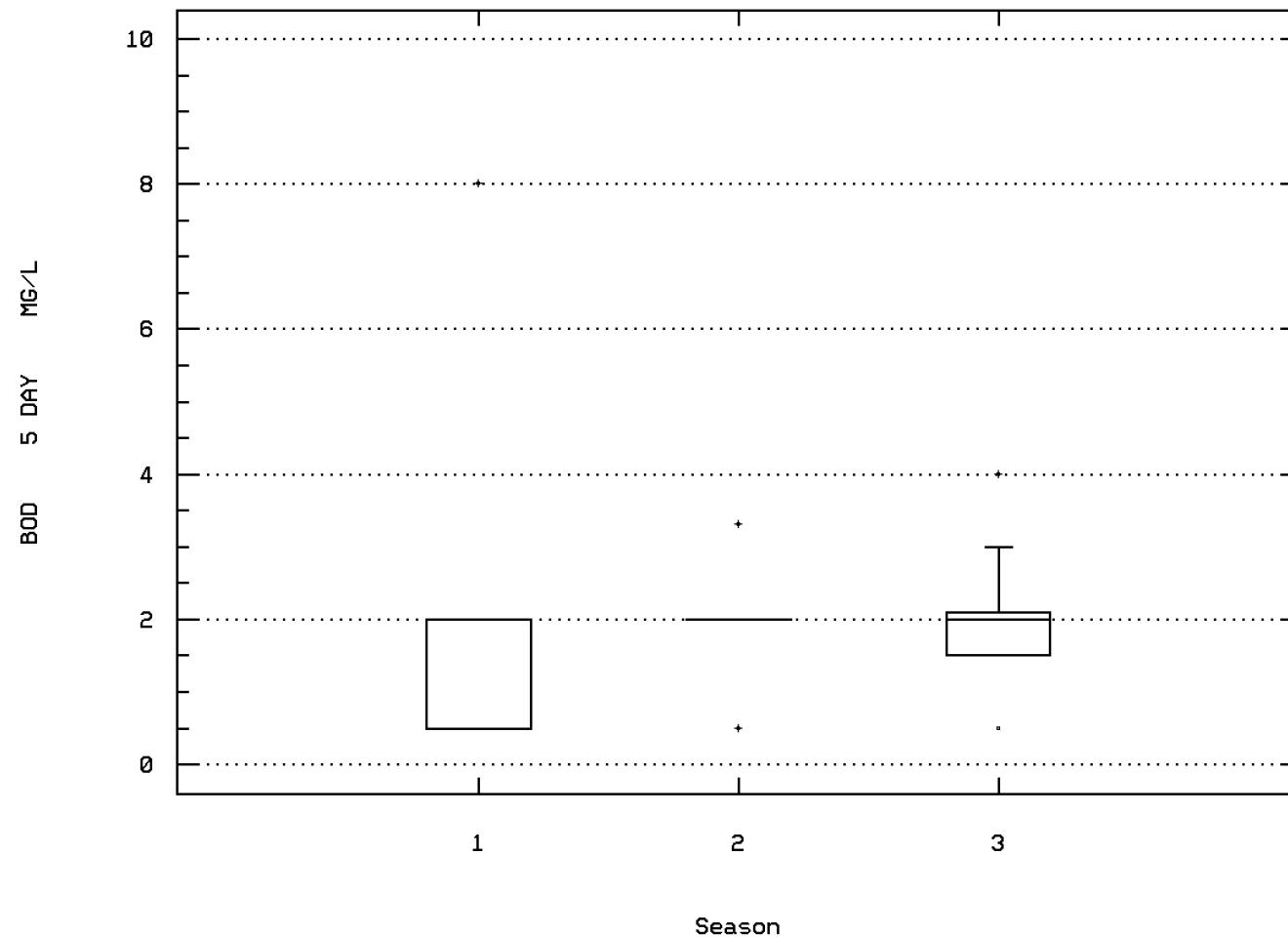
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0105

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/22/68-10/26/98	38	22.4	22.429	30.	11.7	20.027	4.475	17.2	18.875	26.025	29.41
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	05/19/80-10/26/98	17	167.	168.294	249.	109.	1325.846	36.412	125.8	136.5	198.5	219.4
00300	OXYGEN, DISSOLVED MG/L	07/22/68-06/28/83	24	8.3	8.538	14.6	6.1	2.682	1.638	7.1	7.725	8.875	10.45
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/20/69-06/01/95	21	1.	1.505	4.	0.5	0.73	0.855	0.6	1.	2.	2.82
00400p	PH (STANDARD UNITS)	07/22/68-10/26/98	39	7.88	7.93	9.5	6.8	0.477	0.691	7.2	7.36	8.34	9.
00400p	CONVERTED PH (STANDARD UNITS)	07/22/68-10/26/98	39	7.88	7.545	9.5	6.8	0.629	0.793	7.2	7.36	8.34	9.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/22/68-10/26/98	39	0.013	0.029	0.158	0.	0.001	0.035	0.001	0.005	0.044	0.063
00500p	RESIDUE, TOTAL (MG/L)	03/20/69-06/01/95	18	116.5	176.056	1134.	82.	57934.056	240.695	83.8	99.5	141.5	279.9
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/69-06/01/95	18	39.	75.389	613.	16.	18462.252	135.876	20.5	26.	69.	140.5
00510p	RESIDUE, TOTAL FIXED (MG/L)	03/20/69-06/01/95	18	77.	95.444	521.	12.	12080.261	109.91	14.7	53.25	97.75	152.9
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/69-06/01/95	22	15.5	18.932	126.	0.	656.412	25.621	1.1	7.	20.5	33.6
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/69-06/01/95	21	4.	5.5	15.	0.5	16.85	4.105	1.5	2.5	8.5	12.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/69-06/01/95	22	10.	14.614	116.	0.5	555.546	23.57	1.3	3.625	16.25	22.5
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	27 ##	0.05	0.05	0.13	0.01	0.001	0.026	0.02	0.04	0.05	0.088
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	26 ##	0.005	0.008	0.03	0.005	0.	0.006	0.005	0.005	0.01	0.013
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	26	0.31	0.351	1.739	0.01	0.147	0.383	0.025	0.065	0.42	0.808
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	26	0.3	0.36	1.599	0.1	0.113	0.336	0.1	0.175	0.4	0.902
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/22/74-07/14/94	13	6.	8.846	51.	3.	161.808	12.72	3.4	4.5	6.5	33.4
00940	CHLORIDE, TOTAL IN WATER MG/L	07/08/72-06/01/95	15	6.	7.4	15.	3.	10.829	3.291	3.6	5.	9.	13.8
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	19	100.	359.474	3200.	50.	570816.374	755.524	50.	50.	300.	1400.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	05/06/71-06/28/83	19	2.	2.135	3.505	1.699	0.265	0.515	1.699	1.699	2.477	3.146
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	136.338								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/09/70-04/24/79	19 ##	0.05	0.061	0.1	0.025	0.001	0.025	0.025	0.05	0.1	0.1
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	22	0.045	0.04	0.1	0.01	0.001	0.027	0.01	0.01	0.05	0.087

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0105 Parameter Code: 00310

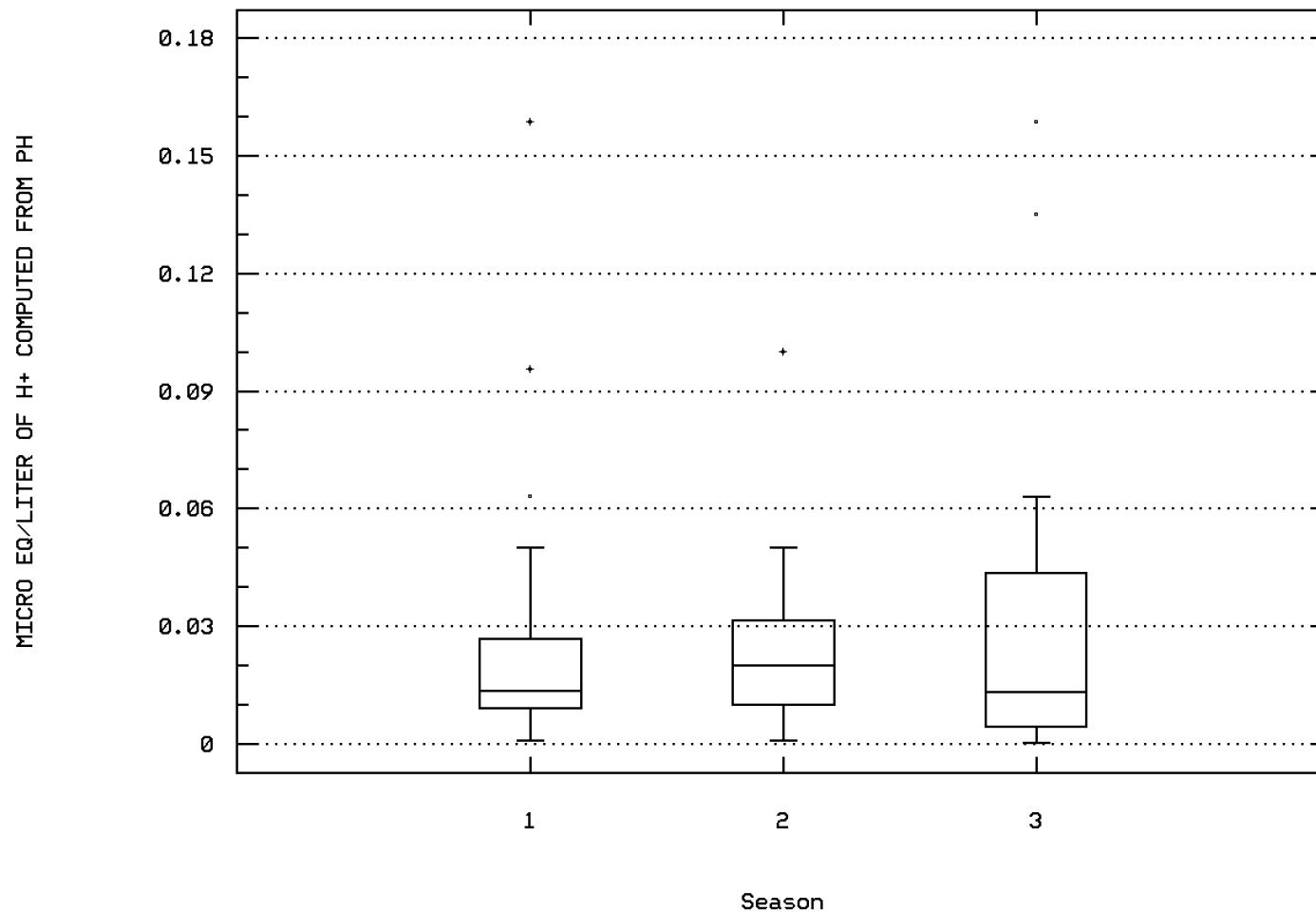
BOD, 5 DAY, 20 DEG C



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00400

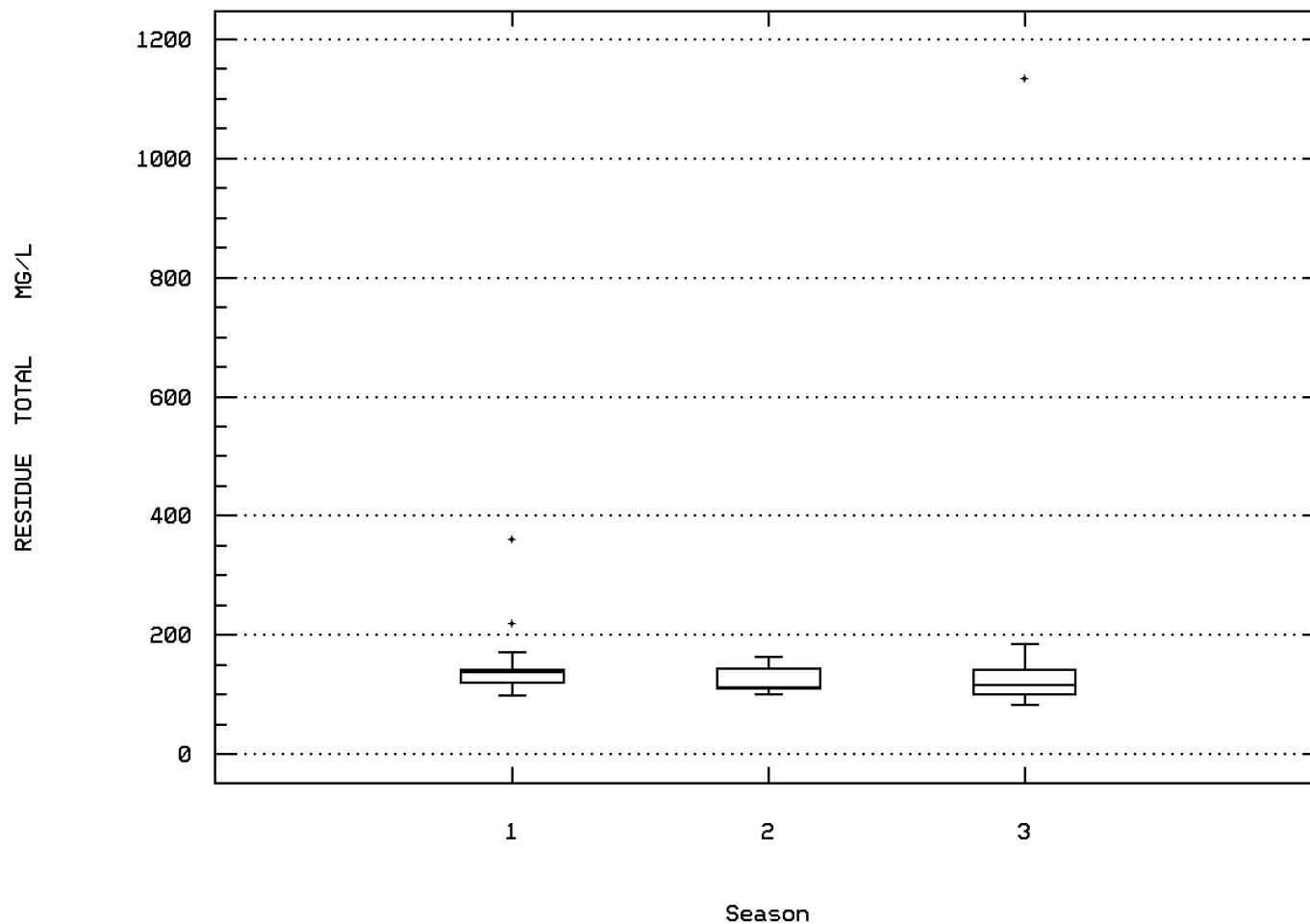
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00500

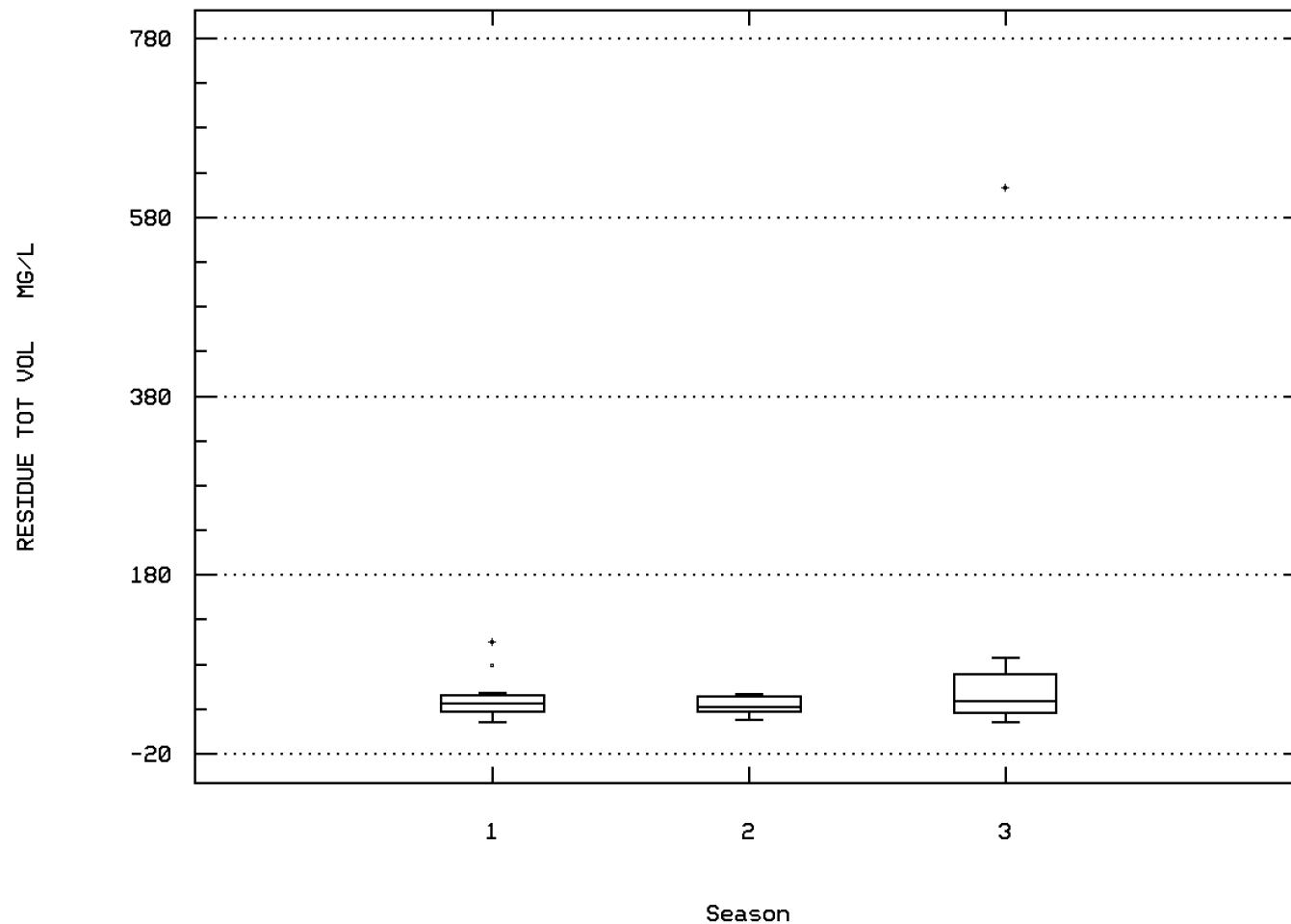
RESIDUE, TOTAL (MG/L)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00505

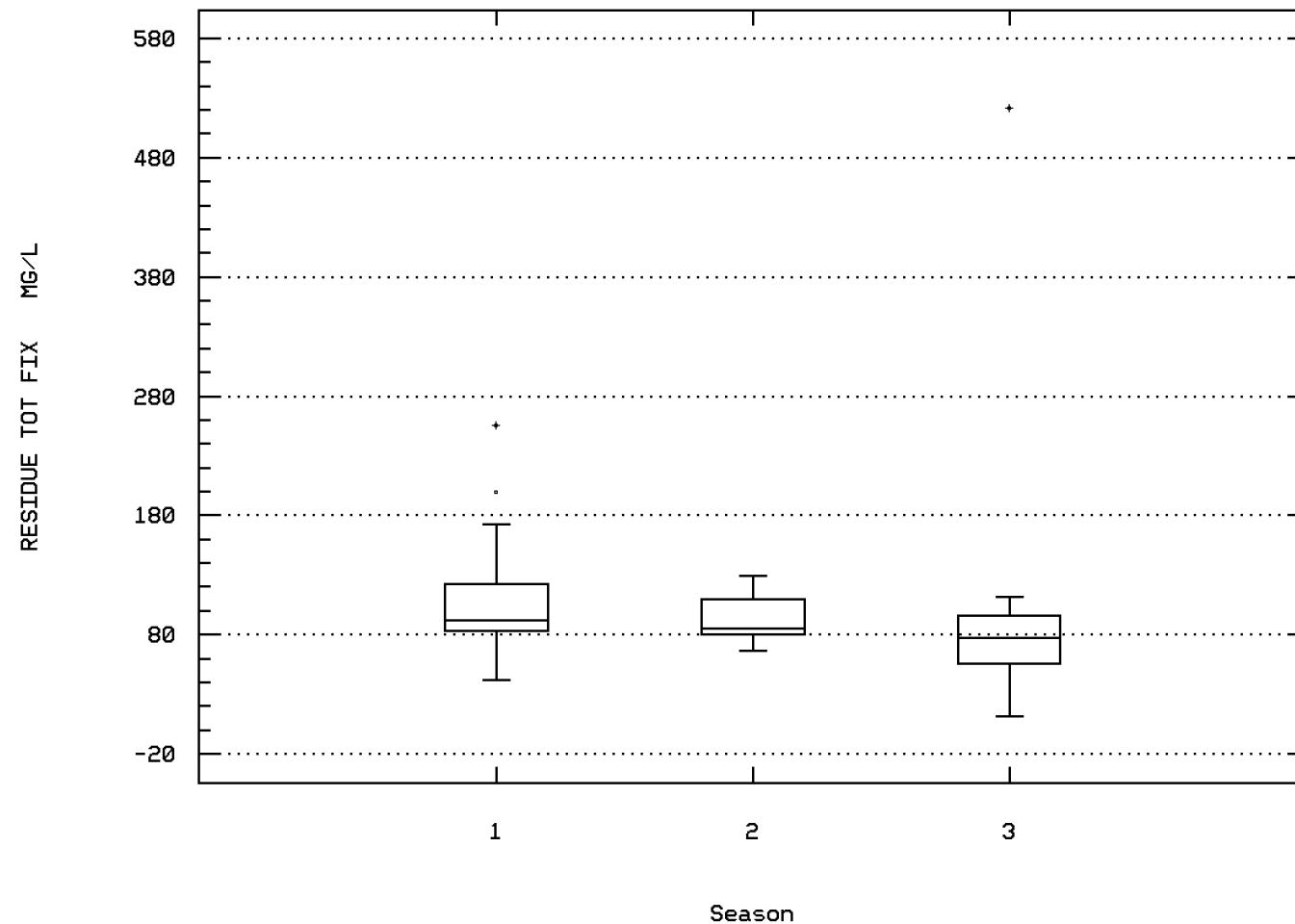
RESIDUE, TOTAL VOLATILE (MG/L)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00510

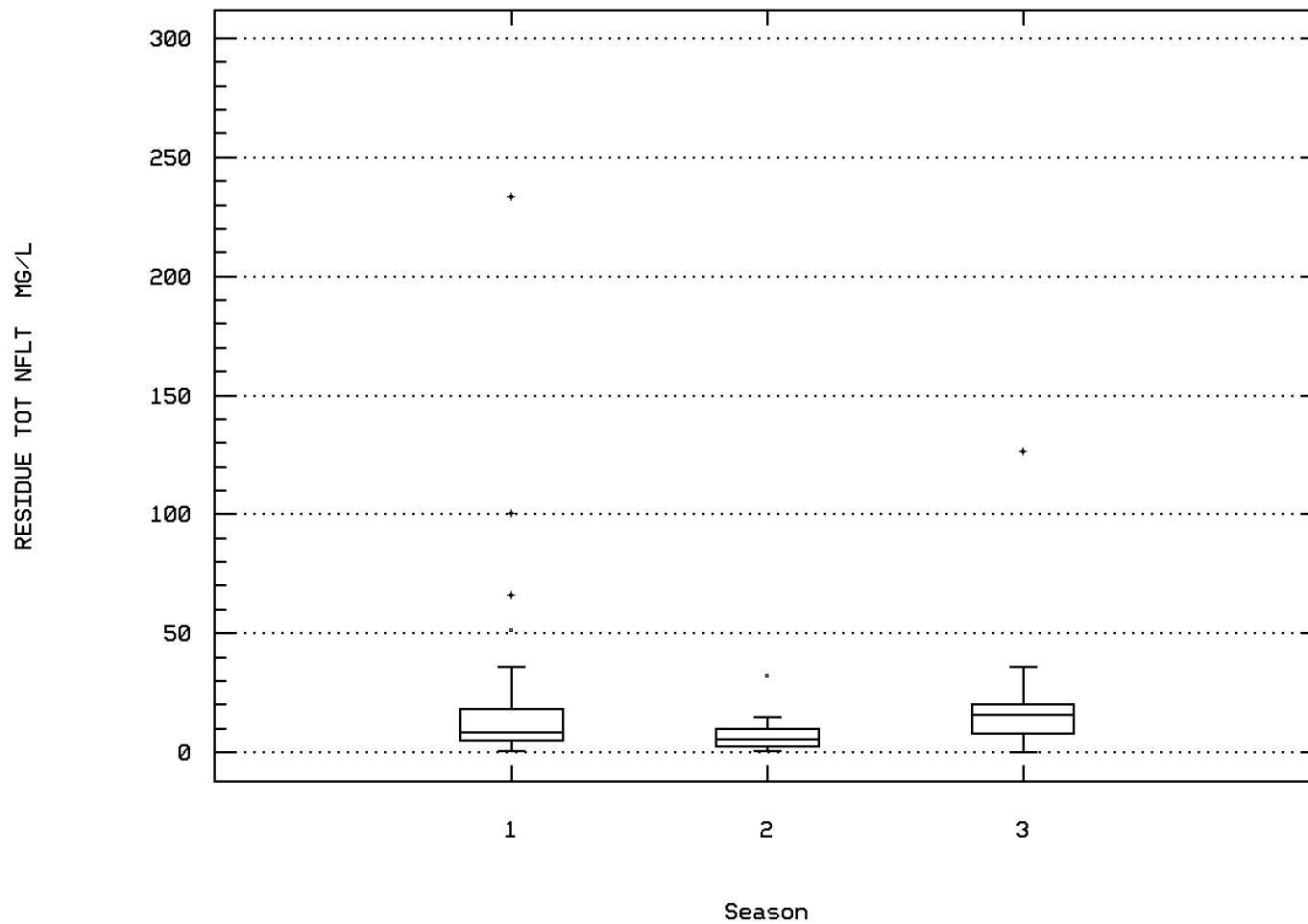
RESIDUE, TOTAL FIXED (MG/L)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00530

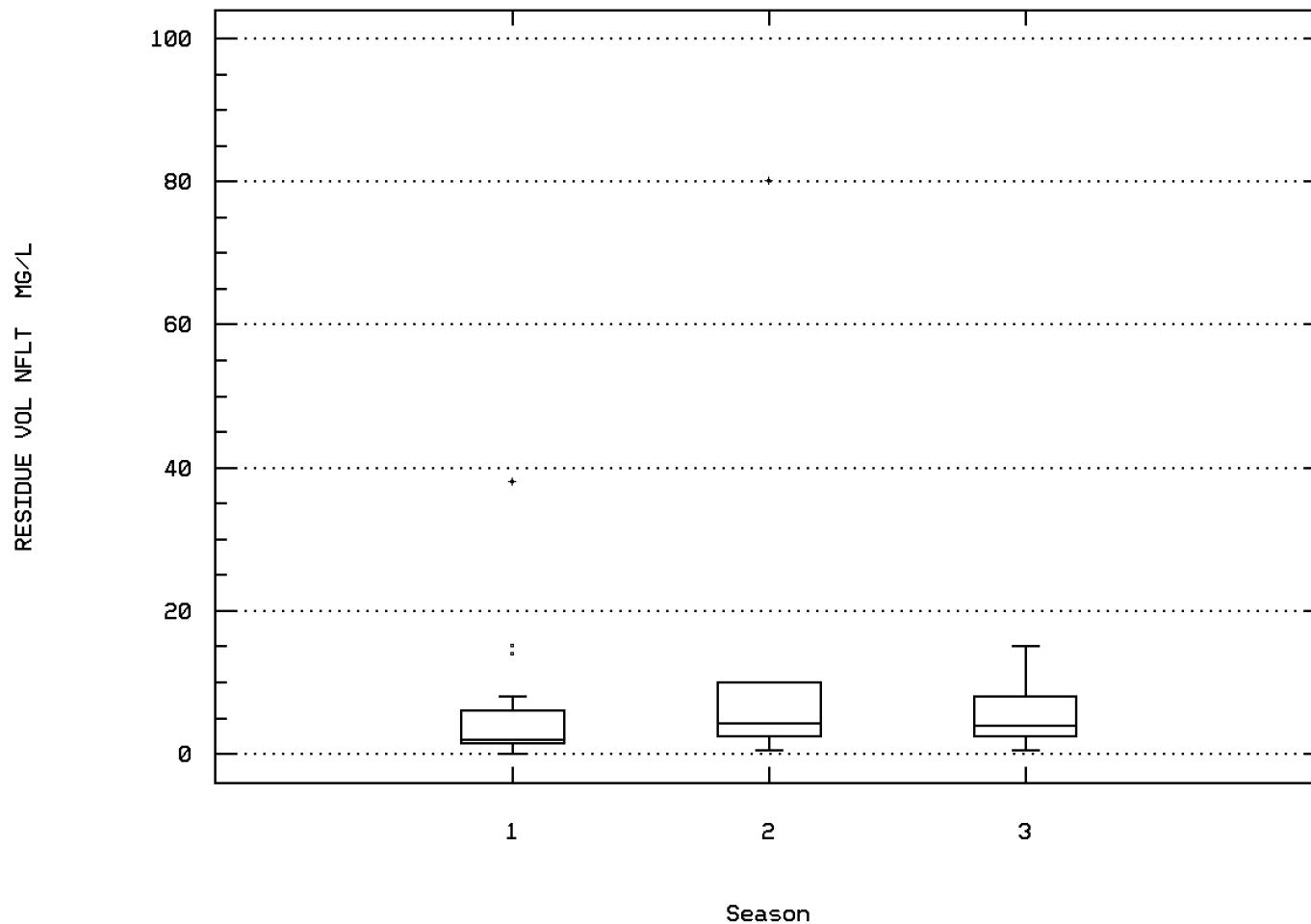
RESIDUE, TOTAL NONFILTRABLE (MG/L)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00535

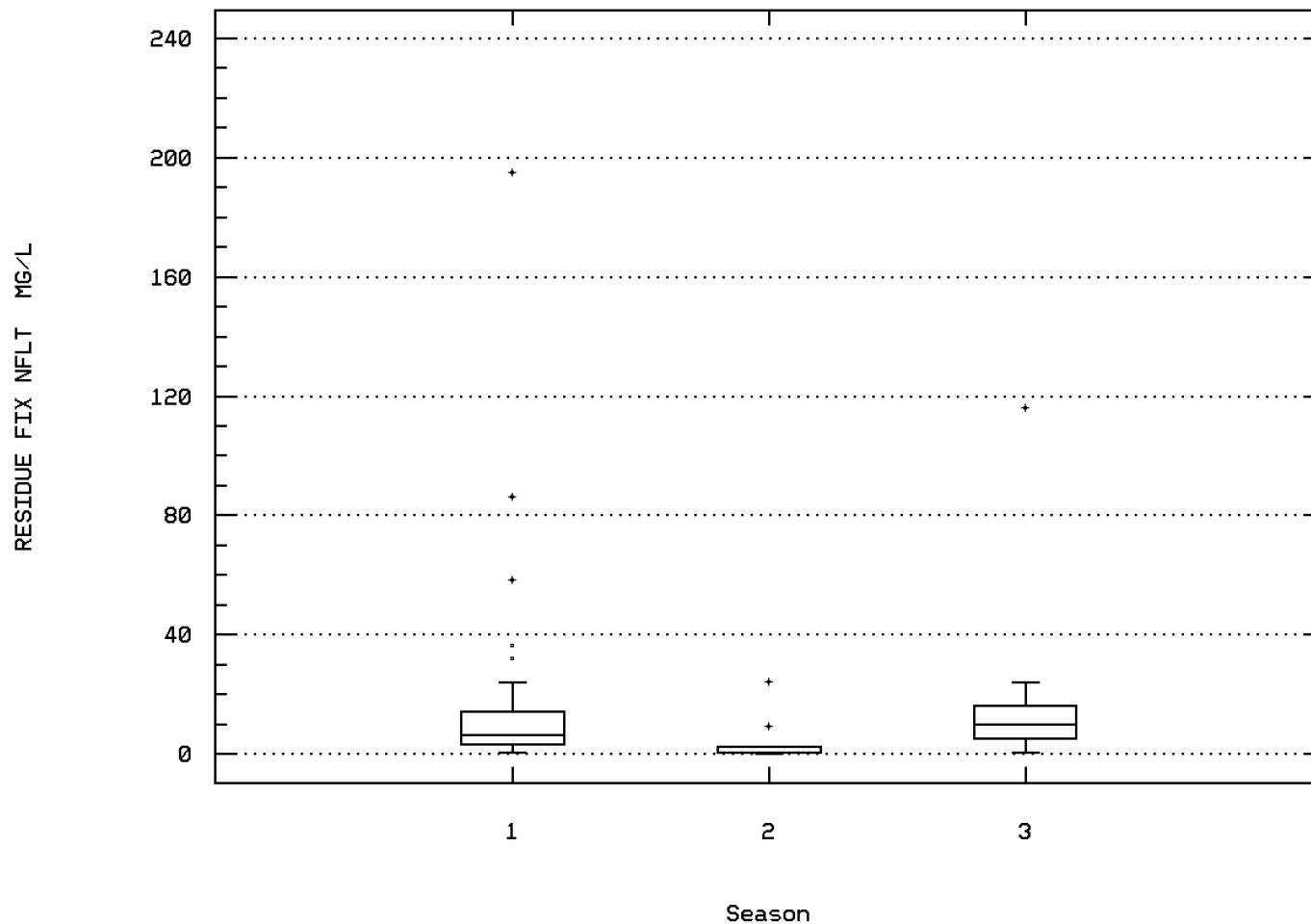
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00540

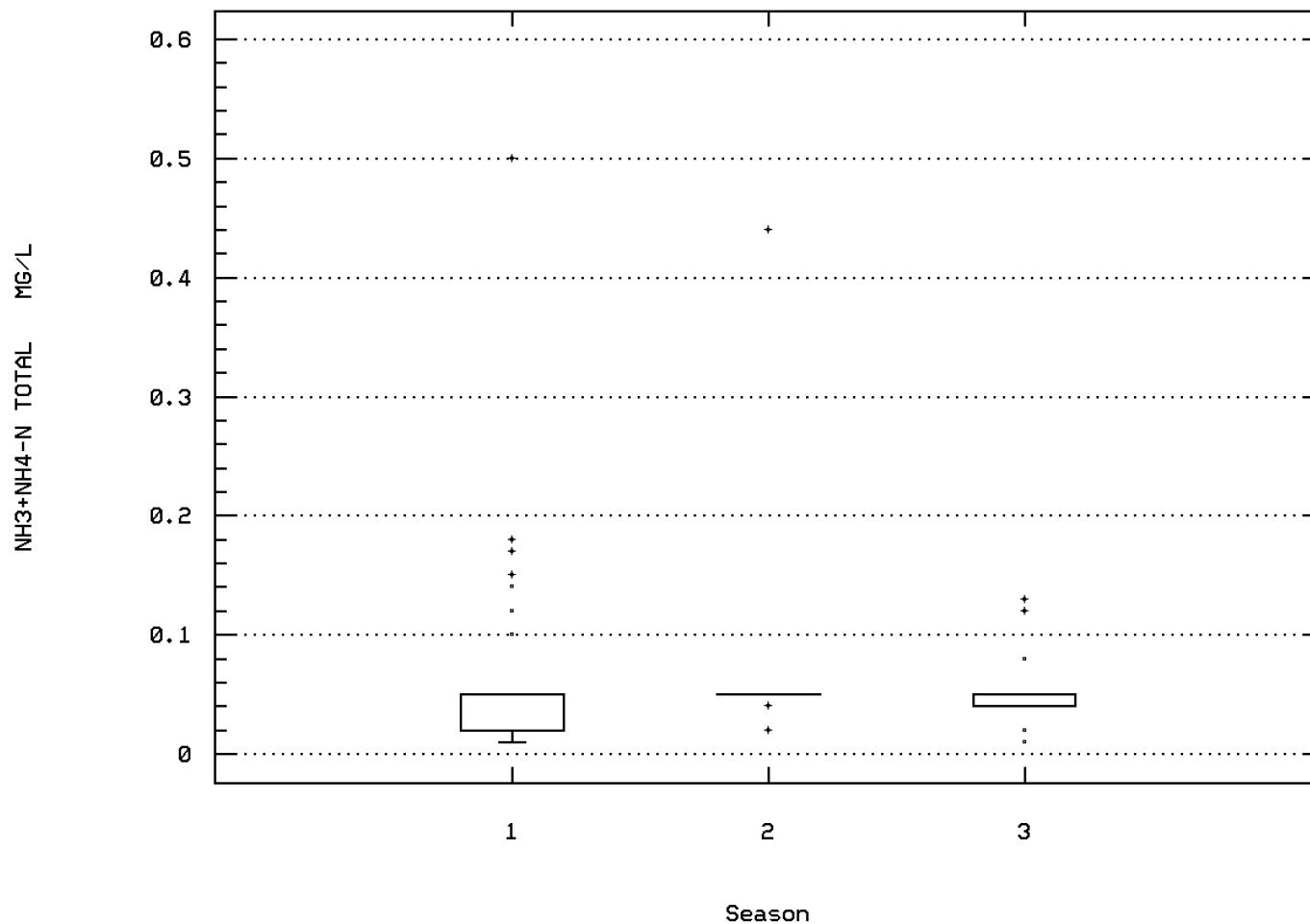
RESIDUE, FIXED NONFILTRABLE (MG/L)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00610

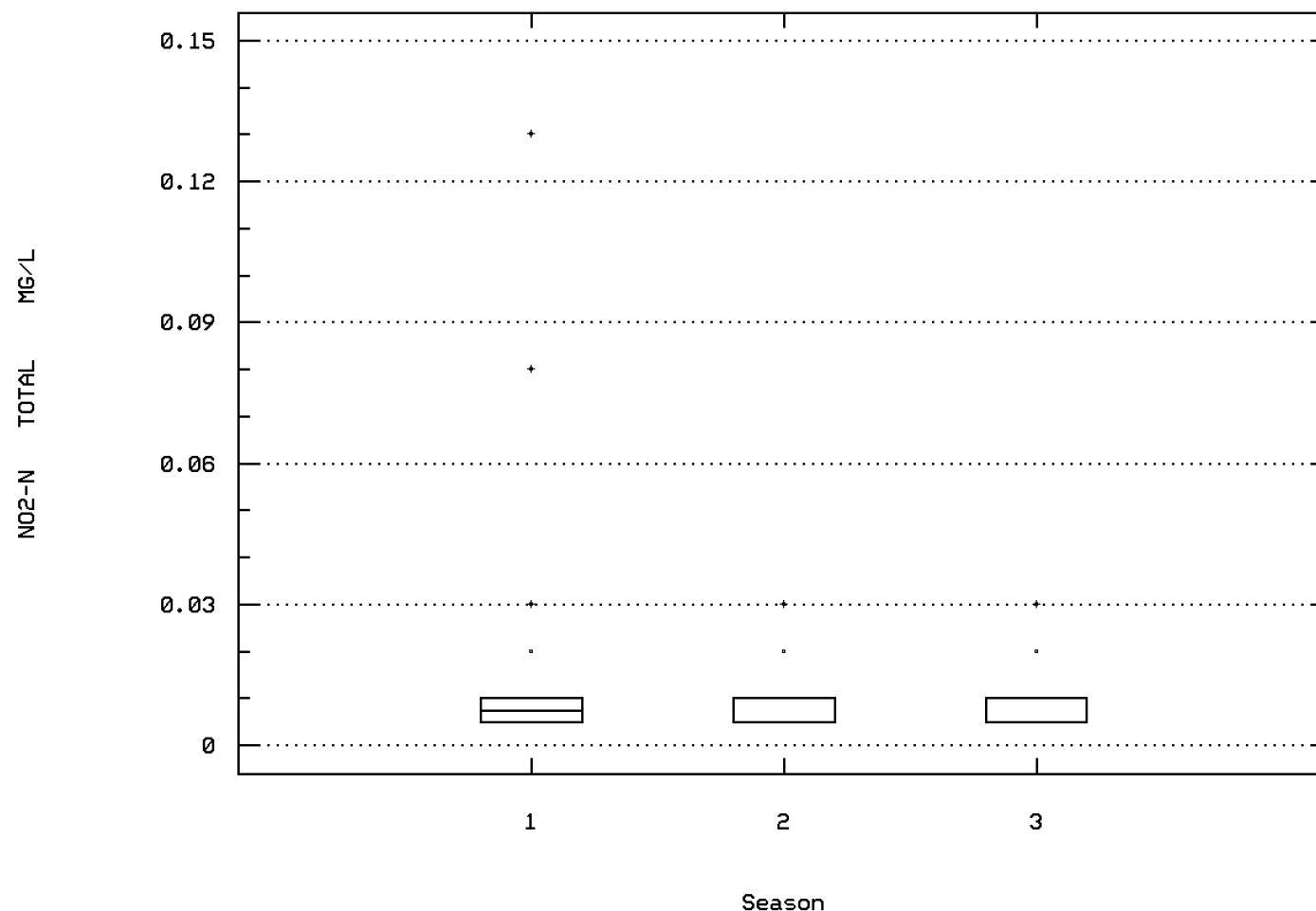
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00615

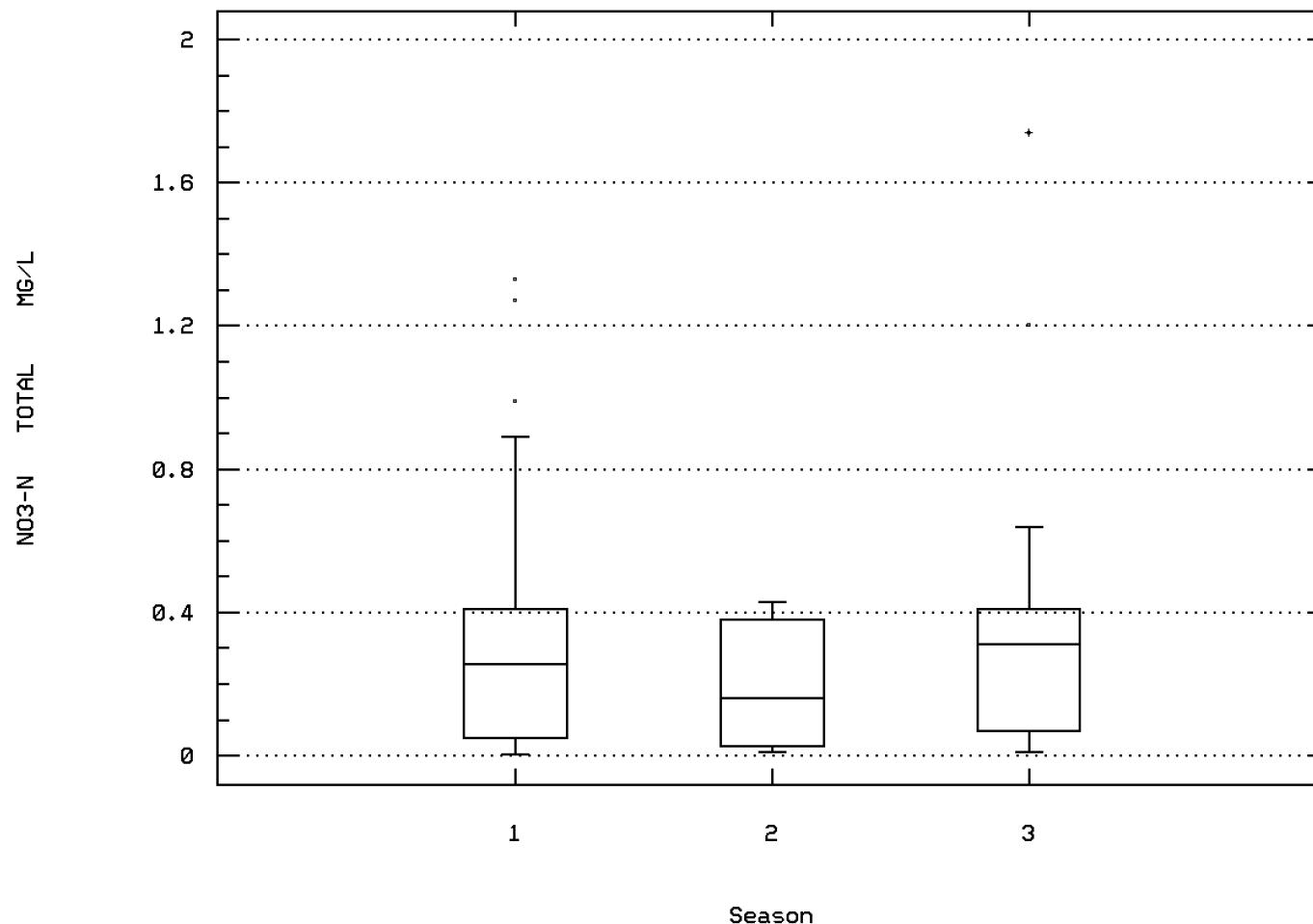
NITRITE NITROGEN, TOTAL (MG/L AS N)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00620

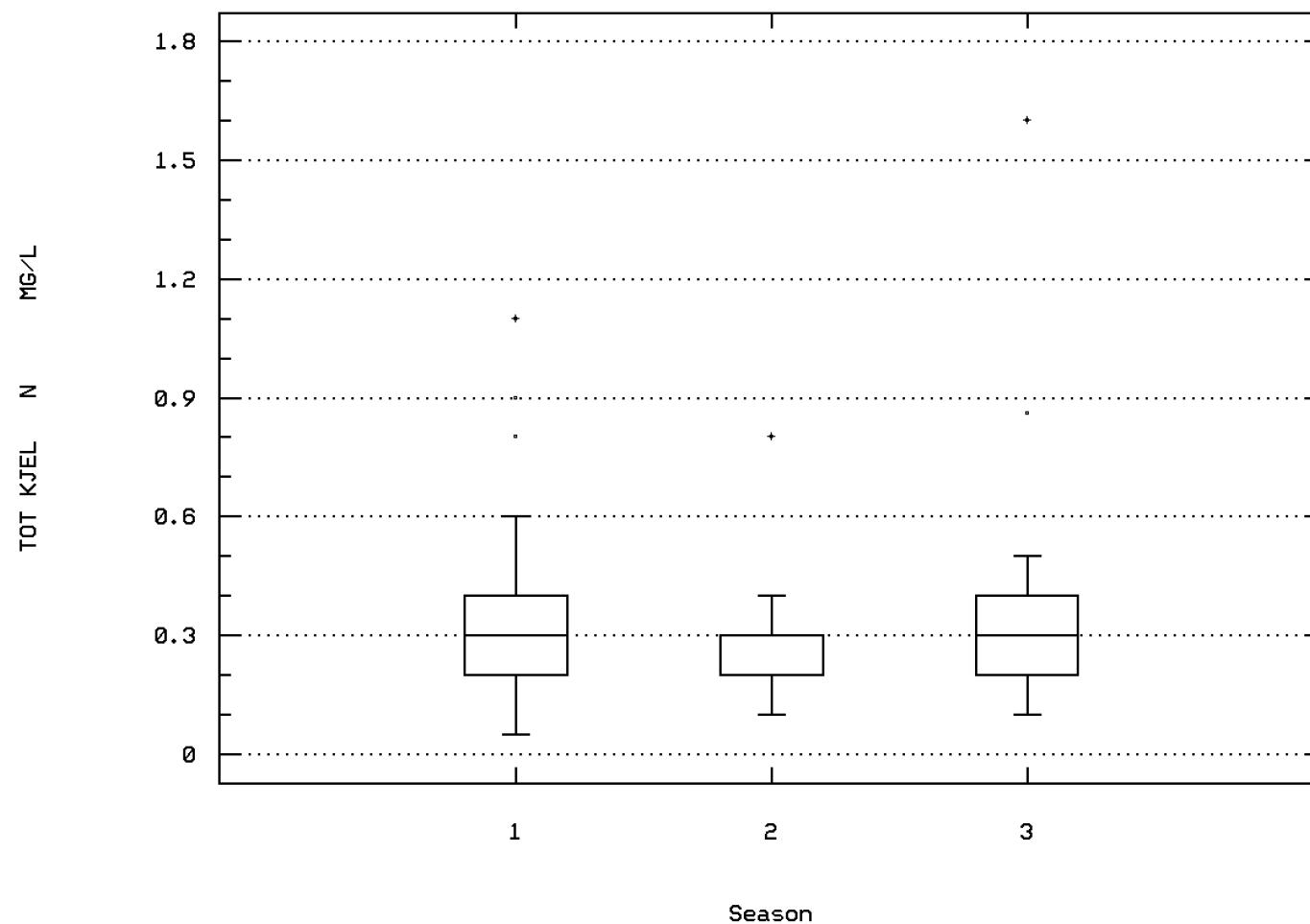
NITRATE NITROGEN, TOTAL (MG/L AS N)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 00625

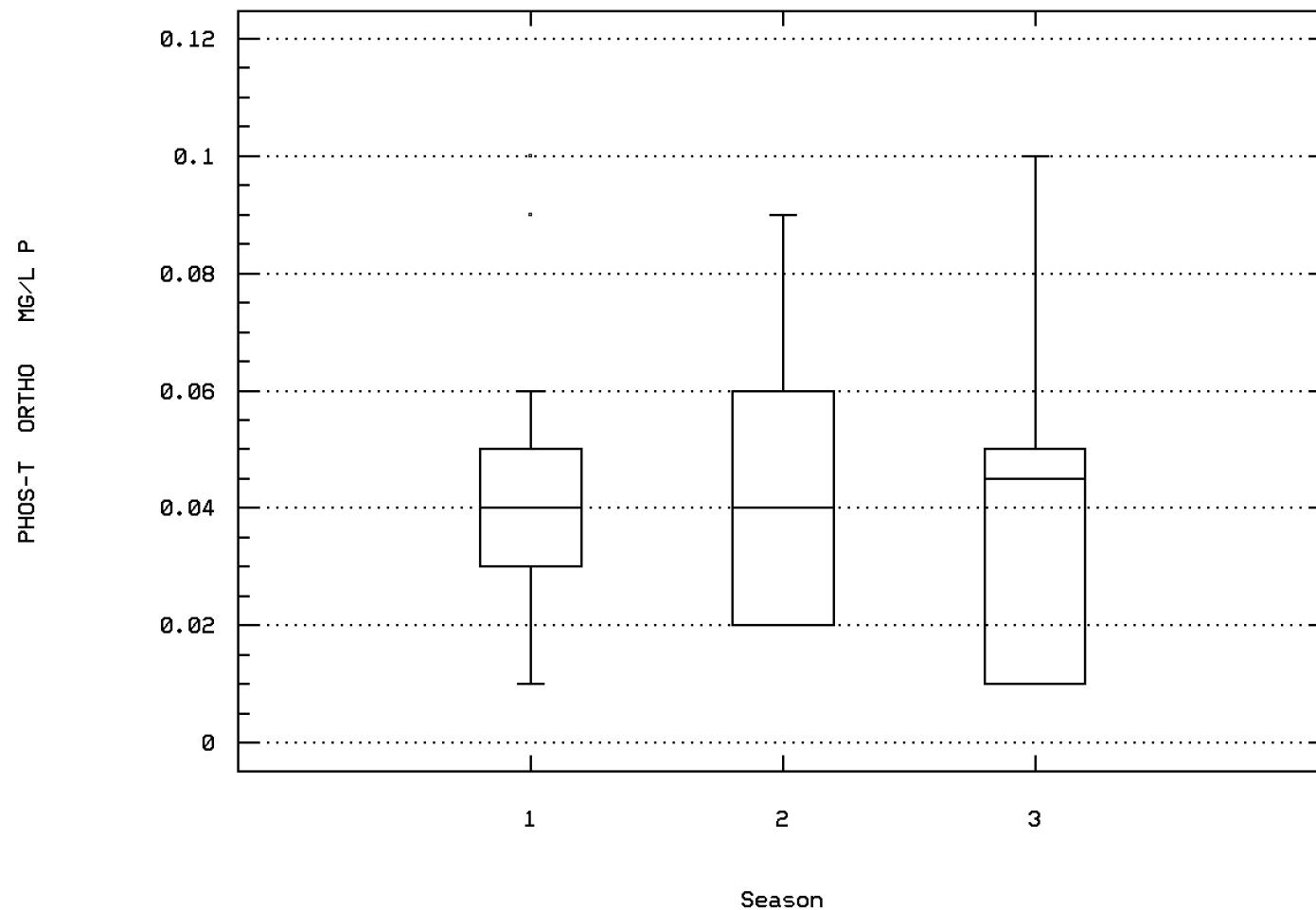
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

Station: RICH0105 Parameter Code: 70507

PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/



ROCK OFF LONE STAR CEMENT CO., DOCK ST.

## Station Inventory for Station: RICH0106

NPS Station ID: RICH0106  
 Location: WAYSIDE SPRING AT RICHMOND, VA  
 Station Type: /TYP/A/MBNT/SPRING  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080205  
 RF3 Index: 02080206008500.00  
 Description:

LAT/LON: 37.523893/ -77.484170

Agency: 112WRD  
 FIPS State/County: 51159 VIRGINIA/RICHMOND  
 STORET Station ID(s): 02037620  
 Within Park Boundary: No

Date Created: 08/27/83

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 2.88

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 8.90  
 Distance from RF3: 0.03

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0106

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	135	16.	15.826	17.5	14.	0.438	0.662	15.	15.5	16.	16.5
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	137	19.	17.624	32.5	-4.	66.712	8.168	6.	12.25	25.	26.6
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	140	2.645	2.665	3.18	2.18	0.063	0.251	2.361	2.453	2.818	3.089
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/24/83-03/24/83	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	141	73.	87.574	1140.	58.	8371.046	91.493	63.	68.	84.	114.
00403	PH, LAB, STANDARD UNITS SU	03/24/83-10/17/83	2	5.2	5.2	5.3	5.1	0.02	0.141	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/24/83-10/17/83	2	5.189	5.189	5.3	5.1	0.02	0.142	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/24/83-10/17/83	2	6.478	6.478	7.943	5.012	4.297	2.073	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	03/24/83-10/17/83	2	3.2	3.2	3.7	2.7	0.5	0.707	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	03/24/83-10/17/83	2	2.	2.	2.3	1.7	0.18	0.424	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	03/24/83-10/17/83	2	1.65	1.65	2.	1.3	0.245	0.495	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	03/24/83-10/17/83	2	9.45	9.45	13.	5.9	25.205	5.02	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	03/24/83-10/17/83	2	1.25	1.25	1.4	1.1	0.045	0.212	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	03/24/83-10/17/83	2	14.	14.	19.	9.	50.	7.071	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/24/83-10/17/83	2 ##	1.55	1.55	2.5	0.6	1.805	1.344	**	**	**	**
01130	LITHIUM, DISSOLVED (UG/L AS LI)	10/17/83-10/17/83	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0106

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00			1	0	0.00	1	0	0.00			
		Other-Lo Lim.	6.5	2	2	1.00			1	1	1.00	1	1	1.00			
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	2	0	0.00			1	0	0.00	1	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	2	0	0.00			1	0	0.00	1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00			1	0	0.00	1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1982 - Station RICH0106

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	5	15.5	15.8	16.5	15.5	0.2	0.447	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	5	15.5	12.8	18.5	0.	57.825	7.604	**	**	**	**
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	6	2.75	2.778	3.07	2.59	0.025	0.159	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	6	69.	70.167	78.	65.	22.167	4.708	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0106

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	35	16.	15.729	16.5	15.	0.343	0.586	15.	15.	16.	16.5
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	35	18.	17.229	32.5	4.	87.005	9.328	6.2	4.	25.	30.5
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	35	2.75	2.748	2.98	2.29	0.02	0.142	2.6	2.67	2.85	2.95
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	36	75.	80.611	138.	58.	467.902	21.631	61.4	63.	85.	121.6

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0106

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	33	16.	15.682	17.	15.	0.263	0.513	15.	15.	16.	16.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	33	16.5	17.258	30.	0.	64.768	8.048	4.1	12.75	23.75	27.2
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	33	3.02	2.967	3.18	2.58	0.031	0.177	2.724	2.8	3.115	3.166
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	33	73.	83.97	160.	62.	540.78	23.255	66.2	70.	92.5	123.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0106

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	20	16.	15.45	17.	14.	0.708	0.841	14.	15.	16.	16.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	20	20.5	19.125	28.	3.	60.628	7.786	3.85	14.75	25.	28.
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	22	2.495	2.46	2.7	2.18	0.028	0.169	2.212	2.31	2.643	2.687
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	22	65.	68.227	95.	58.	93.803	9.685	59.3	62.75	70.5	88.4

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0106

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	25	16.	16.36	17.5	15.5	0.24	0.49	16.	16.	16.75	17.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	26	18.	17.404	27.	2.	55.78	7.469	6.	11.875	24.25	26.15
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	26	2.51	2.49	2.58	2.34	0.006	0.077	2.35	2.438	2.553	2.57
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	26	72.5	119.885	1140.	64.	43607.546	208.824	65.7	69.	81.5	131.5

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0106

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/21/82-09/27/87	17	16.	15.971	17.	15.	0.452	0.672	15.	15.5	16.5	17.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/21/82-09/27/87	18	23.	19.056	26.	6.	62.056	7.878	6.9	8.5	25.5	26.
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	10/30/82-09/27/87	18	2.42	2.414	2.47	2.36	0.001	0.031	2.369	2.388	2.44	2.452
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/30/82-09/27/87	18	83.	90.889	142.	70.	378.105	19.445	70.	75.	103.5	122.2

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0107

NPS Station ID: RICH0107  
 Location: JAMES RIVER AT MOUTH OF REEDY CREEK  
 Station Type: /TYP/A MBNT/STREAM

RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205

Depth of Water: 0  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206000501.22

Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS112.37  
 Within Park Boundary: No

Date Created: 04/13/96

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0107

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	37	21.5	21.076	28.7	12.3	17.697	4.207	14.56	18.1	24.55	26.3
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	36	170.	176.389	319.	43.	3263.616	57.128	108.4	139.	219.	241.9
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	37	7.6	6.681	11.	0.9	7.472	2.734	2.46	3.75	8.6	9.92
00400	PH (STANDARD UNITS)	09/20/95-10/26/98	37	6.97	7.082	8.39	6.41	0.222	0.471	6.468	6.805	7.225	7.828
00400	CONVERTED PH (STANDARD UNITS)	09/20/95-10/26/98	37	6.97	6.902	8.39	6.41	0.255	0.505	6.468	6.805	7.225	7.828
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/95-10/26/98	37	0.107	0.125	0.389	0.004	0.01	0.101	0.015	0.06	0.157	0.34
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	09/11/95-10/26/98	39	790.	4353.846	16000.	9.	37571077.291	6129.525	68.	220.	9200.	16000.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	09/11/95-10/26/98	39	2.898	3.001	4.204	0.954	0.77	0.878	1.833	2.342	3.964	4.204
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)			GEOMETRIC MEAN =	1002.426								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0107

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard		Exceed	Obs	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	37	10	0.27	21	8	0.38	4	0	0.00	12	2	0.17
00400	PH	Fresh Chronic	9.	37	0	0.00	21	0	0.00	4	0	0.00	12	0	0.00
		Other-Lo Lim.	6.5	37	4	0.11	21	2	0.10	4	0	0.00	12	2	0.17
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	39	30	0.77	23	17	0.74	4	3	0.75	12	10	0.83

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0108

NPS Station ID: RICH0108  
 Location: JAMES RIVER,DOWNSTREAM CANOE RUN CSO,SOUTH BANK  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS111.48  
 Within Park Boundary: No

Date Created: 07/16/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0108

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	50th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	56	22.	21.15	27.5	10.7	20.801	4.561	13.84	17.975	25.325	26.66
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/95-09/11/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	14	12.	13.436	40.	2.	119.629	10.937	2.	4.025	19.25	34.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/30/94-10/26/98	48	203.5	205.271	337.	96.	2919.989	54.037	141.5	171.25	236.25	282.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	14	133.	140.857	232.	62.	3545.363	59.543	64.5	76	196.5	227.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	56	4.35	4.217	9.2	0.08	10.073	3.174	0.2	0.9	7.175	8.5
00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	15	5.7	7.053	17.	1.1	28.443	5.333	1.46	2.6	12.	15.8
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	56	6.83	6.859	7.8	6.29	0.133	0.364	6.384	6.573	7.14	7.313
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	56	6.83	6.729	7.8	6.29	0.15	0.387	6.384	6.573	7.14	7.313
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	56	0.148	0.186	0.513	0.016	0.018	0.134	0.049	0.072	0.268	0.413
00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	12	6.8	6.783	7.4	6.3	0.111	0.333	6.33	6.5	7.05	7.34
00403	CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	12	6.8	6.679	7.4	6.3	0.123	0.35	6.33	6.5	7.05	7.34
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	12	0.158	0.21	0.501	0.04	0.02	0.143	0.047	0.091	0.316	0.47
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	12	41.5	42.167	74.	9.	477.424	21.85	10.8	19.5	62.	71.
00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	12	95.5	108.167	166.	60.	1337.242	36.568	63.6	77.5	148.5	163.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	11	24.	27.273	54.	12.	162.018	12.729	12.4	16.	39.	51.2
00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	12	75.	81.583	138.	44.	864.811	29.408	45.8	56.	105.	131.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	15.5	19.893	58.	1.5	264.238	16.255	2.25	5.75	33.	48.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	7.	6.679	13.	1	21.946	4.685	1.25	1.5	11.25	12.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	9.	13.393	46.	1.5	151.007	12.288	1.75	4.75	23.25	35.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	13	0.06	0.28	1.15	0.02	0.156	0.395	0.02	0.02	0.525	1.086
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	12##	0.008	0.019	0.05	0.005	0.	0.017	0.005	0.005	0.038	0.047
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	12	0.14	0.158	0.36	0.02	0.018	0.133	0.02	0.02	0.28	0.342
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	12	0.6	0.95	2.5	0.3	0.552	0.743	0.3	0.4	1.475	2.38
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	12	0.155	0.222	0.6	0.04	0.031	0.176	0.049	0.093	0.313	0.567
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	2	14.15	14.15	18.2	10.1	32.805	5.728	**	**	**	***
00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	12	7.5	9.417	19.	4.	23.356	4.833	4.3	5.25	13.5	17.8
00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	12	12.	13.667	28.	8.	33.515	5.789	8.	9.25	16.	25.6
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	16000.	9671.679	16000.	9.	50166367.058	7082.822	300.	1475.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	4.204	3.626	4.204	0.954	0.665	0.816	2.471	3.167	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/28/94-06/01/95	12	0.1	0.141	0.35	0.03	0.011	0.103	0.036	0.063	0.23	0.329
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	12	0.1	0.141	0.35	0.03	0.011	0.103	0.036	0.063	0.23	0.329

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0108

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	14	0	0.00	10	0	0.00	1	0	0.00	3	0	0.00	
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	56	27	0.48	35	23	0.66	5	1	0.20	16	3	0.19	
00400 PH	Fresh Chronic	9.	56	0	0.00	35	0	0.00	5	0	0.00	16	0	0.00	
	Other-Lo Lim.	6.5	56	13	0.23	35	9	0.26	5	1	0.20	16	3	0.19	
00403 PH, LAB	Fresh Chronic	9.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00	
	Other-Lo Lim.	6.5	12	4	0.33	8	4	0.50	1	0	0.00	3	0	0.00	
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00	
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00	
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00	
	Drinking Water	250.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00	
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00	
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	56	52	0.93	35	32	0.91	5	4	0.80	16	16	1.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0108

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	22.3	21.3	26.8	10.7	27.52	5.246	11.27	19.45	25.95	26.62
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/30/94-10/26/98	5	220.	218.4	245.	172.	893.3	29.888	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	3.95	3.657	8.5	0.08	8.272	2.876	0.116	0.25	5.575	8.11
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	6.625	6.653	7.14	6.34	0.075	0.274	6.346	6.385	6.843	7.119
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	6.623	6.583	7.14	6.34	0.08	0.284	6.346	6.385	6.842	7.119
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.238	0.261	0.457	0.072	0.019	0.139	0.076	0.144	0.414	0.451
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	16000.	11000.	16000.	700.	41060000.	6407.808	1210.	3975.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	4.204	3.903	4.204	2.845	0.199	0.446	3.006	3.591	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	7994.815								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0108

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	21.55	20.82	27.5	13.7	23.024	4.798	13.72	17.125	24.65	27.44
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/30/94-10/26/98	9	182.	175.556	237.	112.	2164.778	46.527	112.	136.	225.5	237.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	2.1	3.89	9.2	0.1	14.088	3.753	0.11	0.725	7.925	9.08
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	6.815	6.812	7.22	6.42	0.073	0.27	6.421	6.58	7.038	7.204
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	6.815	6.737	7.22	6.42	0.079	0.281	6.421	6.58	7.038	7.204
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.153	0.183	0.38	0.06	0.013	0.115	0.063	0.092	0.269	0.379
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	9	5400.	8694.444	16000.	490.	51036677.778	7143.996	490.	1480.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	9	3.732	3.678	4.204	2.69	0.38	0.617	2.69	3.064	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	4761.706								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0108

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	20.7	20.883	25.9	14.7	16.351	4.044	14.79	17.675	25.	25.87
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/30/94-10/26/98	12	182.	182.25	221.	153.	588.023	24.249	153.3	157.75	202.75	219.8
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	7.15	5.975	9.	0.2	9.562	3.092	0.38	3.275	8.4	8.91
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.035	6.938	7.53	6.29	0.162	0.403	6.32	6.533	7.262	7.455
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.022	6.767	7.53	6.29	0.195	0.441	6.32	6.532	7.262	7.455
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.095	0.171	0.513	0.03	0.026	0.161	0.036	0.055	0.297	0.481
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	9750.	8648.333	16000.	230.	59643687.879	7722.933	299.	717.5	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	3.874	3.572	4.204	2.362	0.524	0.724	2.452	2.804	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	3729.671								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0108

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	18.65	19.94	26.6	12.8	20.	4.472	13.04	17.15	23.825	26.45
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/30/94-10/26/98	10	215.5	229.1	324.	180.	1948.1	44.137	180.5	201.5	255.75	319.5
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	2.55	2.959	6.9	0.09	7.558	2.749	0.101	0.275	5.5	6.76
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	6.78	6.823	7.39	6.44	0.1	0.317	6.445	6.55	7.07	7.37
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	6.766	6.732	7.39	6.44	0.109	0.331	6.445	6.55	7.07	7.37
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.171	0.185	0.363	0.041	0.013	0.112	0.043	0.086	0.283	0.359
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	16000.	12506.364	16000.	40.	41225005.455	6420.67	98.	9200.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	4.204	3.792	4.204	1.602	0.781	0.884	1.785	3.964	4.204	4.204

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0108

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			6201.315								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0108

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	23.6	22.55	27.	11.4	21.261	4.611	12.99	20.85	26.3	26.94
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/30/94-10/26/98	12	223.5	225.25	337.	96.	6064.568	77.875	109.8	163.75	300.	336.4
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	3.9	4.342	8.8	0.5	9.552	3.091	0.68	1.525	6.975	8.71
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	12	6.93	7.053	7.8	6.37	0.187	0.433	6.454	6.725	7.363	7.764
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	6.927	6.882	7.8	6.37	0.219	0.468	6.454	6.725	7.363	7.764
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.118	0.131	0.427	0.016	0.013	0.116	0.017	0.044	0.189	0.366
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	4100.	7501.167	16000.	9.	58509808.152	7649.17	19.8	180.	16000.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	3.59	3.213	4.204	0.954	1.316	1.147	1.164	2.215	4.204	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			1632.428								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0109

NPS Station ID: RICH0109  
 Location: JAMES RIVER, BELOW 195  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:

HUC: 02080205  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080205  
 RF3 Index: 02080205000100.08  
 Description:

CHESAPEAKE BAY PROGRAM TISSUE AND SEDIMENT DATA ALL DATA FROM VIRGINIA SWCB DES KEPONE FISH MONITORING PROGRAM, ANALYZED BY DCLS /  
 BIOLOGICAL STUDY 75-010 DES LAB SHEET 33831 APR-AUG 1975/

LAT/LON: 37.525004/ -77.423615

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): XOL1554 /Y4155000  
 Within Park Boundary: No

Date Created: 11/08/80

Depth of Water: 0

Elevation: 0

RF1 Mile Point: 0.000

RF3 Mile Point: 0.07

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.70

Distance from RF3: 0.09

On/Off RF1:

On/Off RF3:

## Parameter Inventory for Station: RICH0109

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00023	SAMPLE WEIGHT IN POUNDS	05/08/75-05/08/75	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00024	SAMPLE LENGTH IN INCHES	05/08/75-05/08/75	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
39369	DDE IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	03/19/76-04/12/79	63	70.	142.222	1000.	10.	37949.821	194.807	30.	40.	150.	360.
39374	DDT IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	08/08/78-04/12/79	22	40.	66.591	400.	10.	7550.92	86.896	11.5	20.	67.5	179.
39520	PCBS IN SHELLFISH OR ANIMAL (UG/KG WET WEIGHT)	02/24/76-04/12/79	84	500.	1066.786	6000.	50.	1497679.905	1223.797	100.	200.	1650.	2750.
71936	LEAD,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	1 ##	0.22	0.22	0.22	0.22	0.	0.	**	**	**	**
71937	COPPER,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	1	636.	636.	636.	636.	0.	0.	**	**	**	**
71938	ZINC,TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	1	107.	107.	107.	107.	0.	0.	**	**	**	**
71939	CHROMIUM,TOT IN FISH OR ANIMALS-WET WEIGHT BASIS	05/08/75-05/08/75	1	1.48	1.48	1.48	1.48	0.	0.	**	**	**	**
71940	CADMUIM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	05/08/75-05/08/75	1 ##	0.74	0.74	0.74	0.74	0.	0.	**	**	**	**
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	120	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.
81665	VANADIUM IN FISH TISSUE WET WEIGHT MG/KG	05/08/75-05/08/75	1 ##	7.4	7.4	7.4	7.4	7.4	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

### Annual Analysis for 1975 - Station RICH0109

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	1	1.	1.	1.	1.	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0109

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	37	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0109

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	26	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0109

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	15	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0109

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
81614	NUMBER OF INDIVIDUALS IN THE SAMPLE	05/08/75-04/12/79	41	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0110

NPS Station ID: RICH0110 LAT/LON: 37.525004/ -77.458059  
 Location: JAMES RIVER,UPSTREAM OCANOE RIN CSO, SOUTH BANK  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206 Depth of Water: 0  
 Major Basin: 02-NORTH ATLANTIC Elevation: 0  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206 RF1 Mile Point: 0.000  
 RF3 Index: 02080206000501.22 RF3 Mile Point: 1.58  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2-JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS111.55  
 Within Park Boundary: No

Date Created: 07/16/94

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0110

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	50th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	55	22.3	21.76	28.9	10.8	23.361	4.833	13.94	18.8	26.	27.64	
00061 FLOW, STREAM, INSTANTANEOUS CFS	09/11/95-09/11/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**	
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	13	3.	4.915	22.	1.4	28.986	5.384	1.64	2.25	5.25	15.96	
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	51	189.	197.902	330.	107.	2403.41	49.025	139.	165.	220.	270.	
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	13	163.	167.769	242.	87.	1979.192	44.488	101.	133.	206.	234.4	
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**	
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	55	7.	7.12	12.6	2.7	4.859	2.204	3.98	5.6	8.7	9.82	
00310 BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	14	1.45	1.643	3.5	0.5	0.816	0.904	0.5	1.	2.025	3.4	
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	55	7.17	7.295	8.83	6.4	0.275	0.524	6.676	6.95	7.48	8.318	
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	55	7.17	7.075	8.83	6.4	0.324	0.569	6.676	6.95	7.48	8.318	
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	55	0.068	0.084	0.398	0.001	0.006	0.079	0.005	0.033	0.112	0.211	
00403 PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	11	7.	7.109	7.9	6.6	0.187	0.432	6.6	6.8	7.3	7.88	
00403 CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	11	7.	6.957	7.9	6.6	0.212	0.461	6.6	6.8	7.3	7.88	
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	11	0.1	0.11	0.251	0.013	0.007	0.083	0.013	0.05	0.158	0.251	
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	11	49.	58.636	171.	20.	1560.455	39.503	22.8	36.	62.	149.2	
00500 RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	11	108.	114.	188.	71.	1113.6	33.371	72.	93.	136.	179.2	
00505 RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	11	23.	25.818	46.	12.	99.364	9.968	12.2	18.	33.	43.4	
00510 RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	10	89.	90.5	155.	58.	1074.056	32.773	58.	59.5	111.25	151.6	
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	13	4.	5.808	22.	1.5	34.606	5.883	1.5	2.25	6.	18.8	
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	13##	1.5	1.692	4.	1	0.731	0.855	1.	1.25	1.5	3.6	
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	12	2.5	4.625	18.	1.5	25.324	5.032	1.5	1.5	5.	15.9	
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	12##	0.02	0.026	0.06	0.02	0.	0.014	0.02	0.02	0.02	0.057	
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11##	0.005	0.013	0.03	0.005	0.	0.011	0.005	0.005	0.03	0.03	
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11##	0.02	0.105	0.27	0.02	0.011	0.106	0.02	0.02	0.24	0.266	
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	11	0.3	0.327	0.5	0.2	0.006	0.079	0.22	0.3	0.4	0.48	
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	11	0.07	0.068	0.11	0.04	0.	0.021	0.04	0.05	0.08	0.106	
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	2	5.35	5.35	5.8	4.9	0.405	0.636	**	**	**	**	
00940 CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	11	12.	11.364	20.	6.	22.855	4.781	6.	6.	15.	19.4	
00945 SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	11	16.	17.273	32.	8.	55.218	7.431	8.6	11.	25.	30.6	
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	1300.	4595.554	16000.	9.	35374917.524	5947.682	37.5	230.	8750.	16000.	
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	3.114	3.035	4.204	0.954	0.889	0.943	1.548	2.362	3.94	4.204	
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/28/94-06/01/95	11	0.04	0.047	0.08	0.02	0.	0.017	0.022	0.04	0.06	0.078	
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	11	0.04	0.047	0.08	0.02	0.	0.017	0.022	0.04	0.06	0.078	

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0110

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	13	0	0.00	9	0	0.00	1	0	0.00	3	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	55	5	0.09	34	4	0.12	5	1	0.20	16	0	0.00			
00400 PH	Fresh Chronic	9.	55	0	0.00	34	0	0.00	5	0	0.00	16	0	0.00			
00403 PH, LAB	Other-Lo Lim.	6.5	55	1	0.02	34	1	0.03	5	0	0.00	16	0	0.00			
	Fresh Chronic	9.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
	Other-Lo Lim.	6.5	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	56	45	0.80	35	25	0.71	5	4	0.80	16	16	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0110

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	11	23.4	22.718	28.5	12.4	31.856	5.644	12.66	19.	27.1	28.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	8	204.	216.125	288.	172.	1592.411	39.905	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	11	7.2	7.091	10.	2.9	4.621	2.15	3.16	6.3	8.4	10.
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.17	7.361	8.47	6.64	0.322	0.567	6.7	7.03	7.61	8.438
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.17	7.137	8.47	6.64	0.377	0.614	6.7	7.03	7.61	8.438
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	11	0.068	0.073	0.229	0.003	0.004	0.063	0.004	0.025	0.093	0.206
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	1100.	4513.636	16000.	130.	38106045.455	6173.009	130.	230.	7400.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	3.041	3.074	4.204	2.114	0.713	0.844	2.114	2.362	3.869	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1185.145								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0110

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	21.95	21.59	28.9	13.3	26.81	5.178	13.38	18.075	26.175	28.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	9	187.	170.222	230.	107.	2410.444	49.096	107.	120.5	219.	230.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	6.5	7.02	10.8	3.8	5.766	2.401	3.88	4.75	9.175	10.69
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.12	7.181	8.18	6.61	0.177	0.42	6.633	6.915	7.363	8.099
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.12	7.047	8.18	6.61	0.197	0.443	6.633	6.915	7.362	8.099
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.076	0.09	0.245	0.007	0.004	0.067	0.01	0.043	0.122	0.235
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	2400.	5174.5	16000.	45.	39711524.722	6301.708	51.5	620.	10900.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	3.329	3.228	4.204	1.653	0.741	0.861	1.692	2.684	4.024	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1690.551								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0110

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	20.8	21.042	26.	14.7	16.181	4.023	14.82	18.	25.25	25.85
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	12	184.5	184.083	220.	139.	765.902	27.675	142.6	160.5	213.75	219.1
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	7.65	7.175	9.2	2.7	4.113	2.028	3.12	6.45	8.825	9.14
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.12	7.02	7.63	6.4	0.147	0.383	6.448	6.62	7.26	7.585
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.12	6.869	7.63	6.4	0.171	0.414	6.448	6.62	7.26	7.585
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.076	0.135	0.398	0.023	0.014	0.119	0.026	0.055	0.243	0.361
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	3550.	6336.667	16000.	230.	44455078.788	6667.464	260.	542.5	14300.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	3.481	3.401	4.204	2.362	0.512	0.716	2.409	2.729	4.144	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	2519.582								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0110

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	19.55	20.44	26.9	12.4	21.767	4.666	12.67	17.725	24.775	26.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	10	204.5	220.1	307.	164.	2014.322	44.881	166.	187.75	261.75	303.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	6.85	6.73	12.6	3.8	6.822	2.612	3.83	4.475	7.95	12.15
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.105	7.224	8.83	6.7	0.36	0.6	6.716	6.913	7.24	8.692
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.105	7.045	8.83	6.7	0.395	0.629	6.716	6.912	7.24	8.692
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.079	0.09	0.2	0.001	0.003	0.055	0.005	0.06	0.123	0.193
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2200.	4477.273	16000.	20.	35269981.818	5938.854	38.	330.	5400.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	3.342	3.134	4.204	1.301	0.802	0.895	1.449	2.519	3.732	4.204

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0110

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			1361.982								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0110

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	23.6	22.842	27.7	10.8	25.426	5.042	12.57	20.725	27.025	27.67
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	12	187.5	201.833	330.	114.	4202.697	64.828	122.7	159.25	247.75	321.9
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	7.15	7.5	11.7	3.6	4.933	2.221	4.17	5.8	9.325	11.07
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.59	7.665	8.36	6.95	0.218	0.467	7.016	7.368	8.198	8.354
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.588	7.473	8.36	6.95	0.258	0.508	7.016	7.368	8.197	8.354
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.026	0.034	0.112	0.004	0.001	0.031	0.004	0.007	0.043	0.099
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	275.	2555.5	16000.	9.	25050143.909	5005.012	9.	20.	2822.5	13960.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	2.43	2.38	4.204	0.954	1.292	1.136	0.954	1.301	3.382	4.132
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			240.039								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0111

NPS Station ID: RICH0111	LAT/LON: 37.527226/ -77.438615	Date Created: 04/08/89
Location: SOUTH BANK OF THE JAMES RIVER BELOW FALL ZONE		
Station Type: /TYP/A/MBNT/STREAM		
RMI-Indexes:		
RMI-Miles:		
HUC: 02080206	Depth of Water: 0	
Major Basin: 02-NORTH-ATLANTIC	Elevation: 0	
Minor Basin: 2-JAMES		
RF1 Index: 02080206	RF1 Mile Point: 0.000	Aquifer:
RF3 Index: 02080205025100.00	RF3 Mile Point: 0.11	Water Body Id:
Description:		ECO Region:
VIRGINIA STATE WATER CONTROL BOARD RIVER: JAMES RIVER	AMBIENT MONITORING SECTION: 02	Distance from RF1: 0.00
	BASIN: 2 JAMES TOPO MAP #: 0131	Distance from RF3: 0.16
	TOPO MAP NAME: RICHMOND, VA	On/Off RF1: On/Off RF3:

## Parameter Inventory for Station: RICH0111

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0112

NPS Station ID: RICH0112	LAT/LON: 37.527226/ -77.476949	Agency: 21VASWCB	Date Created: 04/13/96
Location: JAMES RI, 676M ABOVE MOUTH OF REEDY CREEK		FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): 2-JMS112.79	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080205	Depth of Water: 0	Aquifer:	
Major Basin: 02-NORTH ATLANTIC	Elevation: 0	Water Body Id:	
Minor Basin: 2-JAMES		ECO Region:	
RF1 Index: 02080205	RF1 Mile Point: 0.000	Distance from RF1: 0.00	On/Off RF1:
RF3 Index: 02080206000501.22	RF3 Mile Point: 1.58	Distance from RF3: 0.29	On/Off RF3:
Description:			
VIRGINIA STATE WATER CONTROL BOARD	AMBIENT MONITORING	BASIN: 2- JAMES	REGION: 4 PIEDMONT
RIVER: JAMES RIVER	SECTION: 08	TOPO MAP #: 0131	TOPO MAP NAME: RICHMOND, VA

### Parameter Inventory for Station: RICH0112

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	37	22.3	22.286	29.	10.4	23.495	4.847	14.38	20.3	26.55	28.1
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	36	197.	209.694	359.	106.	3504.39	59.198	146.5	162.25	251.5	297.9
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	37	8.3	8.341	10.8	5.8	1.492	1.222	6.7	7.35	9.3	10.02
00400	PH (STANDARD UNITS)	09/20/95-10/26/98	37	7.6	7.576	8.67	6.79	0.141	0.376	7.048	7.33	7.825	8.016
00400	CONVERTED PH (STANDARD UNITS)	09/20/95-10/26/98	37	7.6	7.426	8.67	6.79	0.165	0.406	7.048	7.33	7.825	8.016
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/95-10/26/98	37	0.025	0.038	0.162	0.002	0.001	0.035	0.01	0.015	0.047	0.09
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	38	365.	2306.263	16000.	9.	20093081.388	4482.531	45.	105.75	1900.	9880.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	38	2.56	2.644	4.204	0.954	0.719	0.848	1.653	2.023	3.277	3.988
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	440.664								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0112

Parameter	Std. Type	Std. Value	Total	Exceed	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
			Obs	Standard		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	37	0	0.00	21	0	0.00	4	0	0.00	12	0	0.00
00400	PH	Fresh Chronic	9.	37	0	0.00	21	0	0.00	4	0	0.00	12	0	0.00
		Other-Lo Lim.	6.5	37	0	0.00	21	0	0.00	4	0	0.00	12	0	0.00
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	38	24	0.63	23	17	0.74	4	1	0.25	11	6	0.55

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0113

NPS Station ID: RICH0113  
 Location: I 95 BRIDGE (CITY OF RICHMOND)  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH-ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080205020900.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.528615/ -77.429726

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS109.98  
 Within Park Boundary: No

Date Created: 12/07/84

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 9.80  
 Distance from RF3: 0.53

On/Off RF1:  
 On/Off RF3:

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0113

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/28/83-09/27/83	3	27.	25.5	29.5	20.	24.25	4.924	**	**	**
00078	TRANSPARENCY, SECCHI DISC (METERS)	07/28/83-10/12/83	7##	0.335	142.989	999.	0.26	142480.25	377.466	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/28/83-09/27/83	3	245.	241.667	260.	220.	408.333	20.207	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/28/83-09/27/83	3	8.7	8.9	9.5	8.5	0.28	0.529	**	**	**
00400	PH (STANDARD UNITS)	07/28/83-09/27/83	3	8.7	8.6	8.8	8.3	0.07	0.265	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/28/83-09/27/83	3	8.7	8.543	8.8	8.3	0.075	0.274	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/83-09/27/83	3	0.002	0.003	0.005	0.002	0.	0.002	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/83-09/27/83	3	68.	66.333	70.	61.	22.333	4.726	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	07/28/83-09/27/83	3	0.	0.	0.	0.	0.	0.	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	07/28/83-09/27/83	3	159.	156.333	181.	129.	681.333	26.102	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/28/83-10/03/83	5	5.	5.8	12.	2.5	15.575	3.947	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/28/83-10/03/83	5	5.	4.4	7.	2.5	3.675	1.917	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/28/83-10/12/83	7##	0.05	0.044	0.05	0.005	0.	0.017	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/83-10/12/83	6##	0.005	0.005	0.005	0.005	0.	0.	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/83-10/12/83	6##	0.025	0.025	0.025	0.025	0.	0.	**	**	**
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	07/28/83-09/27/83	3	0.3	0.267	0.3	0.2	0.003	0.058	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/83-09/27/83	3	0.2	0.233	0.3	0.2	0.003	0.058	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	07/28/83-09/27/83	3	0.	0.	0.	0.	0.	0.	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/83-09/27/83	4##	0.125	0.15	0.3	0.05	0.015	0.122	**	**	**
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	07/28/83-10/03/83	4##	0.075	0.125	0.3	0.05	0.014	0.119	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/28/83-09/27/83	3	0.1	0.067	0.1	0.	0.003	0.058	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/28/83-09/27/83	3	4.	4.667	6.	4.	1.333	1.155	**	**	**
31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	3	930.	763.333	930.	430.	83333.333	288.675	**	**	**
31506	LOG COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	07/28/83-09/27/83	3	2.968	2.857	2.968	2.633	0.037	0.193	**	**	**
31506	GM COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.			GEOMETRIC MEAN =	719.137							
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	07/28/83-09/27/83	3	93.	95.333	150.	43.	2866.333	53.538	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	07/28/83-09/27/83	3	1.968	1.926	2.176	1.633	0.075	0.274	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	84.336							
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	07/28/83-10/12/83	4	1.35	1.225	2.1	0.1	0.823	0.907	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	07/28/83-10/12/83	4	1.15	1.15	1.7	0.6	0.217	0.465	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/28/83-09/27/83	3	0.	0.067	0.2	0.	0.013	0.115	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0113

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	3	0	0.00	3	0	0.00						
00400	PH	Fresh Chronic	9.	3	0	0.00	3	0	0.00						
		Other-Lo Lim.	6.5	3	0	0.00	3	0	0.00						
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	6	0	0.00	6	0	0.00						
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	6	0	0.00	6	0	0.00						
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	3	0	0.00	3	0	0.00						
31506	COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	3	0	0.00	3	0	0.00						
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	3	0	0.00	3	0	0.00						
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	3	1	0.33	3	1	0.33						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0114

NPS Station ID: RICH0114  
 Location: JAMES RIVER AT TEXAS AVENUE BEACH  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.528615/ -77.468616

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS112.33  
 Within Park Boundary: No

Date Created: 04/13/96

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0114

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	36	22.3	22.381	28.4	13.8	17.665	4.203	14.77	20.175	26.45	27.43
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	35	197.	211.743	362.	111.	3493.314	59.104	143.8	170.	250.	301.2
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	36	8.45	8.333	11.	2.3	2.353	1.534	6.85	7.525	9.375	10.13
00400	PH (STANDARD UNITS)	09/20/95-10/26/98	36	7.59	7.588	8.27	6.5	0.121	0.348	7.252	7.403	7.81	8.019
00400	CONVERTED PH (STANDARD UNITS)	09/20/95-10/26/98	36	7.59	7.421	8.27	6.5	0.15	0.387	7.252	7.403	7.81	8.019
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/95-10/26/98	36	0.026	0.038	0.316	0.005	0.003	0.053	0.01	0.016	0.04	0.056
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	38	490.	2599.868	16000.	9.	20746386.442	4554.82	74.7	137.5	2975.	9880.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	38	2.69	2.795	4.204	0.954	0.641	0.801	1.868	2.138	3.471	3.988
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	623.239								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0114

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Exceed	Obs	Exceed	Prop.	Obs	Exceed	Prop.		
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	36	1	0.03	20	0	0.00	4	0	0.00	12	1	0.08
00400	PH	Fresh Chronic	9.	36	0	0.00	20	0	0.00	4	0	0.00	12	0	0.00
		Other-Lo Lim.	6.5	36	1	0.03	20	0	0.00	4	0	0.00	12	1	0.08
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	38	26	0.68	22	16	0.73	4	2	0.50	12	8	0.67

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0115

NPS Station ID: RICH0115  
 Location: JAMES RIVER,I-95 BR.AT NORTH BANK, DS SHOCKOE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS110.07  
 Within Park Boundary: No

Date Created: 07/16/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0115

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	56	24.7	23.755	31.2	14.9	20.405	4.517	16.	21.325	27.475
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	14	7.7	8.607	20.	1.5	38.311	6.19	1.5	2.75	13.65
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	47	200.	213.702	361.	111.	3486.822	59.049	143.8	177.	260.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	14	184.	183.357	277.	84.	3312.247	57.552	103.	134.	231.25
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	55	8.4	8.504	10.9	6.	1.267	1.125	7.06	7.8	9.3
00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	15	2.4	3.84	17.	0.5	18.28	4.275	0.5	1.	6.
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	56	7.9	7.843	8.64	6.92	0.136	0.369	7.397	7.553	8.092
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	56	7.9	7.69	8.64	6.92	0.16	0.4	7.397	7.552	8.092
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	56	0.013	0.02	0.12	0.002	0.	0.02	0.005	0.008	0.028
00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	12	7.3	7.233	8.2	6.4	0.255	0.505	6.43	6.85	7.55
00403	CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	12	7.3	6.977	8.2	6.4	0.327	0.572	6.43	6.85	7.55
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	12	0.05	0.105	0.398	0.006	0.016	0.125	0.01	0.029	0.144
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	07/28/94-06/01/95	12	49.5	48.75	71.	16.	252.75	15.898	21.4	36.75	62.5
00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	12	126.5	129.417	178.	87.	1135.538	33.698	87.	97.25	162.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	12	23.5	27.667	51.	15.	115.879	10.765	15.9	18.5	36.25
00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	12	105.	101.75	160.	63.	1145.114	33.84	63.6	69.	129.25
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	12.5	17.143	46.	1.5	214.247	14.637	1.5	4.	28.25
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	3.	4.357	15.	1.	15.593	3.949	1.25	1.875	5.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	9.5	13.143	38.	1.5	132.709	11.52	1.5	3.	20.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	13	0.05	0.157	0.84	0.02	0.054	0.233	0.02	0.02	0.21
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	12	0.01	0.015	0.03	0.005	0.	0.012	0.005	0.005	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	12	0.16	0.176	0.33	0.02	0.016	0.128	0.02	0.038	0.315
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	12	0.35	0.542	1.4	0.2	0.161	0.401	0.23	0.3	0.65
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	12	0.105	0.122	0.29	0.05	0.007	0.081	0.05	0.06	0.148
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	2	4.35	4.35	5.7	3.	3.645	1.909	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	07/28/94-06/01/95	12	12.	12.667	22.	6.	34.242	5.852	6.	7.	18.5
00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	12	18.5	19.667	34.	10.	82.061	9.059	10.3	11.	29.25
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	3150.	7222.857	16000.	20.	50451966.234	7102.955	196.	700.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	3.496	3.422	4.204	1.301	0.609	0.78	2.284	2.845	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	2645.448							
70507	PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	12	0.065	0.083	0.23	0.04	0.003	0.055	0.04	0.05	0.098

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0115

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	14	0	0.00	10	0	0.00	1	0	0.00	3	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	55	0	0.00	34	0	0.00	5	0	0.00	16	0	0.00			
00400 PH	Fresh Chronic	9.	56	0	0.00	35	0	0.00	5	0	0.00	16	0	0.00			
	Other-Lo Lim.	6.5	56	0	0.00	35	0	0.00	5	0	0.00	16	0	0.00			
00403 PH, LAB	Fresh Chronic	9.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00			
	Other-Lo Lim.	6.5	12	2	0.17	8	2	0.25	1	0	0.00	3	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00			
	Drinking Water	250.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	56	51	0.91	35	33	0.94	5	4	0.80	16	14	0.88			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0115

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	25.6	24.2	30.9	15.7	25.347	5.035	15.82	20.325	27.8	30.57
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	8.1	8.3	10.	6.7	1.073	1.036	6.88	7.7	9.375	9.94
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.74	7.749	8.55	6.92	0.174	0.417	7.061	7.558	7.92	8.475
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.74	7.566	8.55	6.92	0.211	0.459	7.061	7.557	7.92	8.475
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.018	0.027	0.12	0.003	0.001	0.031	0.003	0.012	0.028	0.096
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	12000.	9501.667	16000.	20.	50320033.333	7093.661	344.	1525.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	4.054	3.638	4.204	1.301	0.744	0.862	1.823	3.171	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	4347.598								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0115

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	24.	23.86	31.2	15.	28.963	5.382	15.1	20.65	28.25	31.13
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.15	8.43	10.3	7.4	0.905	0.951	7.41	7.65	9.3	10.2
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.765	7.747	8.2	7.26	0.12	0.347	7.277	7.43	8.043	8.191
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.714	7.63	8.2	7.26	0.136	0.368	7.277	7.43	8.042	8.191
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.019	0.023	0.055	0.006	0.	0.017	0.006	0.009	0.037	0.053
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	1500.	4713.	16000.	130.	37697023.333	6139.79	187.	1000.	8050.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	3.172	3.314	4.204	2.114	0.404	0.635	2.187	2.992	3.85	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	2062.278								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0115

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	21.85	22.433	27.4	15.8	16.77	4.095	15.92	19.225	26.425	27.31
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	9.15	8.942	10.9	6.	1.55	1.245	6.63	8.175	9.775	10.63
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.6	7.71	8.64	7.23	0.147	0.383	7.257	7.455	7.938	8.466
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.6	7.594	8.64	7.23	0.161	0.401	7.257	7.455	7.937	8.466
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.025	0.025	0.059	0.002	0.	0.016	0.004	0.012	0.035	0.056
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	5800.	7809.167	16000.	130.	58151862.879	7625.737	190.	467.5	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	3.672	3.433	4.204	2.114	0.666	0.816	2.235	2.67	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	2709.728								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0115

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	11	22.9	23.682	29.4	14.9	19.814	4.451	15.8	21.3	27.6	29.14
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.65	8.4	10.3	6.	1.776	1.332	6.42	7.125	9.7	10.24
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.97	7.903	8.43	7.4	0.141	0.376	7.402	7.54	8.23	8.42
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.97	7.763	8.43	7.4	0.163	0.404	7.402	7.54	8.23	8.42
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	11	0.011	0.017	0.04	0.004	0.	0.014	0.004	0.006	0.029	0.04
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	5400.	8310.909	16000.	110.	56327729.091	7505.18	132.	490.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	3.732	3.514	4.204	2.041	0.667	0.817	2.102	2.69	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	3266.134								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0115

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	11	25.	24.691	29.1	16.	16.705	4.087	16.66	23.1	28.2	29.04
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	11	8.4	8.409	10.8	6.1	1.237	1.112	6.42	7.9	8.8	10.42
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	11	8.07	8.115	8.32	7.91	0.019	0.136	7.924	8.01	8.24	8.31
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	11	8.07	8.096	8.32	7.91	0.019	0.138	7.924	8.01	8.24	8.31
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	11	0.009	0.008	0.012	0.005	0.	0.002	0.005	0.006	0.01	0.012
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	790.	5290.909	16000.	140.	49560309.091	7039.908	156.	330.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2.898	3.183	4.204	2.146	0.628	0.793	2.185	2.519	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		1522.461							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0116

NPS Station ID: RICH0116  
 Location: RT. 360 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206004603.50  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD INTENSIVE SURVEY NO. 835108 BASIN: 2 JAMES  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA  
 THIS STATION IS ALSO USED FOR SURVEY 845101

LAT/LON: 37.530503/ -77.434003

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS110.30 /VA2-02-X0142/VA2-4X0142 /TF5.2  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 3.96

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.04

On/Off RF1:  
 On/Off RF3:

REGION: 4 PIEDMONT

### Parameter Inventory for Station: RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	2521	27.5	25.156	34.	0.	41.43	6.437	17.	22.5	29.5	30.5
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	64	5.4	21.742	180.	0.6	1540.219	39.246	2.2	3.425	23.75	44.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	84	5.05	13.04	237.	0.6	1034.032	32.156	2.	2.8	9.375	16.7
00078	TRANSPARENCY, SECCHI DISC (METERS)	08/16/83-10/03/93	2 ##	499.538	499.538	999.	0.075	498925.578	706.347	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	02/25/91-01/12/94	20	35.5	70.2	630.	15.	17786.168	133.365	21.	26.	55.	86.5
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	358	160.	173.402	522.	30.	4510.275	67.159	100.	127.	210.	269.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	151	164.	174.364	436.	2.	4109.166	64.103	110.2	131.	213.	257.8
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	178	0.	0.002	0.1	0.	0.	0.013	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	274	9.4	9.901	16.5	6.7	3.388	1.841	7.95	8.4	11.2	12.6
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	2293	8.	8.217	16.3	4.4	1.572	1.254	7.	7.4	8.8	9.5
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	262	1.	1.591	7.	0.05	0.983	0.991	0.5	1.	2.	2.9
00335	COD, .025N K2CR2O7 MG/L	12/20/88-03/15/98	2	11.05	11.05	14.5	7.6	23.805	4.879	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	217	11.	11.797	75.	0.5	48.195	6.942	6.	8.	15.	19.
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	526	8.	7.928	9.3	5.5	0.456	0.675	7.	7.448	8.5	8.773
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	526	8.	7.358	9.3	5.5	0.782	0.884	7.	7.447	8.5	8.773
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	526	0.01	0.044	3.162	0.001	0.025	0.159	0.002	0.003	0.036	0.1
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	144	7.5	7.482	8.5	6.	0.203	0.451	6.9	7.2	7.775	8.1
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	144	7.5	7.238	8.5	6.	0.264	0.513	6.9	7.2	7.775	8.1
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	144	0.032	0.058	1.	0.003	0.095	0.095	0.008	0.017	0.063	0.126
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	146	49.	49.096	83.	3.	227.37	15.079	30.7	40.	58.25	70.6
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/16/83-10/03/93	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	84	122.5	147.964	1078.	74.	18125.384	134.631	88.5	102.5	154.5	180.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	83	28.	42.506	921.	6.	9825.326	99.123	14.4	21.	40.	57.2
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	82	85.5	103.256	754.	14.	6295.255	79.343	66.3	76.5	120.75	140.8
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	08/16/83-10/03/93	2	154.5	154.5	190.	119.	2520.5	50.205	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	368	7.	20.194	718.	0.	2650.287	51.481	2.	3.25	16.	38.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	368	2.5	4.179	78.	0.	37.195	6.099	1.	1.5	5.	8.1
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	363	5.	16.512	640.	0.	2116.172	46.002	1.	2.5	13.	31.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	207 ##	0.025	0.029	0.19	0.002	0.	0.022	0.01	0.02	0.04	0.05
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	267 ##	0.05	0.059	0.45	0.005	0.004	0.06	0.02	0.04	0.05	0.1
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	209 ##	0.005	0.005	0.04	0.001	0.	0.005	0.001	0.004	0.005	0.01

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

## Parameter Inventory for Station: RICH0116

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	266 ##	0.005	0.01	0.11	0.005	0.	0.011	0.005	0.005	0.01	0.02
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	206	0.17	0.178	0.6	0.002	0.022	0.15	0.02	0.025	0.31	0.393
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	248	0.255	0.26	2.179	0.003	0.049	0.221	0.025	0.09	0.37	0.461
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/16/83-10/03/83	2	0.35	0.35	0.5	0.2	0.045	0.212	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	410	0.3	0.371	3.5	0.05	0.083	0.288	0.2	0.2	0.4	0.6
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/15/77-08/07/80	18	0.255	0.237	0.6	0.025	0.04	0.2	0.025	0.025	0.38	0.6
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-12/15/98	37	0.1	0.158	0.5	0.	0.023	0.151	0.005	0.009	0.3	0.4
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	312	0.1	0.125	1.2	0.02	0.011	0.106	0.05	0.05	0.15	0.247
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	168	0.06	0.082	0.48	0.01	0.005	0.072	0.03	0.04	0.1	0.2
00667	PHOSPHORUS, SUSPENDED (MG/L AS P)	08/16/83-10/03/83	3	0.1	0.083	0.1	0.05	0.001	0.029	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	364	0.05	0.069	0.46	0.004	0.005	0.068	0.02	0.03	0.08	0.15
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	373	4.6	5.16	29.	1.	10.216	3.196	2.7	3.45	6.	8.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	117	59.	92.991	3600.	28.	107365.043	327.666	41.8	50.	72.	89.2
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/02/92-11/02/92	1	5000.	5000.	5000.	0.	0.	**	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	126	8.5	10.607	34.	2.	43.218	6.574	4.	6.	14.	21.
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	122	15.	18.484	65.	7.	106.5	10.32	10.	11.	23.	34.7
00951	FLUORIDE, TOTAL (MG/L AS F)	11/29/88-07/07/93	48 ##	0.05	0.091	0.25	0.025	0.004	0.062	0.05	0.05	0.12	0.196
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	174	7.25	7.058	15.4	0.5	5.142	2.268	4.	5.75	8.5	9.55
01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-04/08/93	19 ##	2.5	2.921	5.	0.5	3.618	1.902	1.	1.	5.	5.
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10/25/79-08/27/92	4 ##	2.4	3.078	7.1	0.41	8.078	2.842	**	**	**	**
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	08/27/92-08/27/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01027	CADMUM, TOTAL (UG/L AS CD)	11/23/70-04/08/93	22 ##	5.	4.591	5.	0.5	1.753	1.324	1.85	5.	5.	5.
01028	CADMUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	4 ##	0.07	0.673	2.5	0.05	1.484	1.218	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	4	17.85	18.65	25.	13.9	28.87	5.373	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/08/93	32 ##	5.	6.422	20.	0.5	21.147	4.599	5.	5.	5.	17.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/08/93	31 ##	5.	7.226	20.	5.	17.914	4.232	5.	5.	10.	14.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	10/25/79-08/27/92	4	4.085	6.39	14.	3.39	25.9	5.089	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	06/29/70-04/08/93	12	475.	888.333	3260.	160.	817851.515	904.351	187.	315.	1422.5	2792.
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/08/93	30 ##	5.	9.083	60.	1.	122.588	11.072	3.2	5.	9.	15.
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	10/25/79-08/27/92	4	8.84	10.12	21.2	1.6	77.748	8.817	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-04/08/93	12	35.	64.167	280.	10.	6281.061	79.253	10.	22.5	70.	244.
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/29/73-11/01/78	9 ##	50.	40.	50.	5.	393.75	19.843	5.	27.5	50.	50.
01067	NICKEL, TOTAL (UG/L AS NI)	05/18/82-04/08/93	10 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	10/25/79-08/27/92	4	6.915	7.833	14.	3.5	23.386	4.836	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/08/93	32 ##	7.5	16.406	97.	5.	437.088	20.907	5.	5.	20.	30.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	10/25/79-08/27/92	4	38.15	49.125	86.	34.2	618.209	24.864	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	78	7050.	6630.564	13000.	4.	599529.067	2448.53	3490.	4575.	8500.	9610.
01147	SELENIUM, TOTAL (UG/L AS SE)	01/14/91-04/08/93	7 ##	5.	6.429	10.	5.	5.952	2.44	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	08/27/92-08/27/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	02/18/68-05/26/74	18	6050.	29803.889	230000.	430.	3354195872.222	57915.42	430.	930.	28000.	106700.
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150	02/18/68-05/26/74	18	3.769	3.776	5.362	2.633	0.712	0.844	2.633	2.968	4.43	5.008
31506	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506	08/16/83-07/08/86	26	430.	1815.385	24000.	15.	22789951.846	4773.882	40.	150.	1072.5	3930.
31506	COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-07/08/86	26	2.633	2.626	4.38	1.176	0.525	0.724	1.602	2.176	3.02	3.529
31506	GM COLIFORM,TOT,MPN, CONFIRMED TEST, TUBE CONFIG.	08/16/83-07/08/86	26	423.106									
31614	FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	4	18.	145.75	540.	7.	69118.917	262.905	**	**	**	**
31614	LOG FECAL COLIFORM,MPN,TUBE CONFIGURATION	03/21/94-06/09/94	4	1.244	1.517	2.732	0.845	0.699	0.836	**	**	**	**
31614	GM FECAL COLIFORM,MPN,TUBE CONFIGURATION	01/26/94-12/15/98	111	170.	1591.018	16000.	9.	14312358.181	3783.168	20.	68.	790.	5400.
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	111	2.23	2.383	4.204	0.954	0.691	0.831	1.301	1.833	2.898	3.732
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	111	2.23	2.383	4.204	0.954	0.691	0.831	1.301	1.833	2.898	3.732
31616	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		241.643									
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	278	50.	818.142	80000.	1.5	30659934.753	5537.141	50.	50.	200.	800.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	278	1.699	2.047	4.903	0.176	0.351	0.593	1.699	1.699	2.301	2.903
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		111.34									
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	08/16/83-10/03/83	4	1.25	1.375	2.	1.	0.229	0.479	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	08/16/83-10/03/83	4	1.25	1.275	1.6	1.	0.063	0.25	**	**	**	**
32240	TANNIN AND LIGNIN (MG/L)	01/12/94-01/12/94	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
34259	DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351	ENDOSULFAN SULFATE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356	ENDOSULFAN, BETA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361	ENDOSULFAN, ALPHA TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366	ENDRIN ALDEHYDE TOTWUG/L	03/28/85-03/28/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34480	THALLIUM DRY WGTBOTMG/KG	08/27/92-08/27/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34671	PCB - 1016 TOTWUG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451	DICHLORPROP WATER,SUSPUG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745	2,4-DB WATER, TOTUG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	08/27/92-08/27/92	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39062	CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065	CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068	CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071	CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39305	O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310	P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39315	O,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39327	ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/06/81-08/27/92	2##	25.	25.	50.	0.	1250.	35.355	**	**	**	**
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39351	CHLORDANE(TECH MIX & METABS),SEDIMENTS,DRY WGT,UG/KG	08/27/92-08/27/92	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39368	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/25/79-03/28/85	3	0.	0.017	0.05	0.	0.001	0.029	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	08/27/92-08/27/92	1##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	08/27/92-08/27/92	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492	PCB - 1322 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/28/85-03/28/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	08/27/92-08/27/92	1##	250.	250.	250.	250.	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	08/15/82-08/15/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/06/81-05/06/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/25/79-09/11/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39730	2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740	2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760	SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
49567	PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	02/22/95-12/15/98	47	0.013	0.035	0.495	0.001	0.006	0.08	0.003	0.007	0.023	0.061
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	02/22/95-12/15/98	45	0.479	0.813	5.794	0.072	1.173	1.083	0.24	0.348	0.765	1.579
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	45	0.052	0.091	0.469	0.018	0.01	0.1	0.031	0.042	0.095	0.201
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	02/22/95-12/15/98	47	0.431	0.44	0.89	0.083	0.036	0.189	0.187	0.309	0.569	0.719
49572	PHOSPHOROUS TOTAL, FIELD FILTRATED, DISSLVD,WTR MG/L	02/22/95-12/15/98	47	0.041	0.046	0.13	0.012	0.001	0.025	0.022	0.028	0.053	0.078
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/22/74-10/03/83	3	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	99##	0.05	0.058	0.3	0.025	0.001	0.032	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	109	0.04	0.036	0.1	0.005	0.	0.022	0.01	0.02	0.05	0.06
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/08/93	28##	0.25	0.404	2.5	0.15	0.364	0.603	0.15	0.15	0.25	0.88
71921	MERCURY,TOT, IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10/25/79-08/27/92	4##	0.063	0.071	0.15	0.01	0.004	0.066	**	**	**	**
75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
77825	ALACHLOR WHOLE WATER,UG/L	03/28/85-03/28/85	1##	0.1	0.1	0.1	0.1	0.1	0.	0.	**	**	**
79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	08/27/92-08/27/92	1##	50.	50.	50.	50.	0.	0.	**	**	**	**
82032	CALCIUM - TOTAL UG/L (AS CA)	11/02/92-11/02/92	1	22400.	22400.	22400.	22400.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0116

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	64	5	0.08	19	1	0.05	25	3	0.12	20	1	0.05
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	84	4	0.05	27	0	0.00	30	3	0.10	27	1	0.04
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	274	0	0.00	109	0	0.00	80	0	0.00	85	0	0.00
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2293	0	0.00	1998	0	0.00	195	0	0.00	100	0	0.00
00400 PH	Fresh Chronic	9.	526	23	0.04	182	10	0.05	178	5	0.03	166	8	0.05
00403 PH, LAB	Other-Lo Lim.	6.5	526	11	0.02	182	0	0.00	178	7	0.04	166	4	0.02
	Fresh Chronic	9.	144	0	0.00	39	0	0.00	54	0	0.00	51	0	0.00
	Other-Lo Lim.	6.5	144	1	0.01	39	0	0.00	54	1	0.02	51	0	0.00
00613 NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	209	0	0.00	72	0	0.00	68	0	0.00	69	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	266	0	0.00	81	0	0.00	101	0	0.00	84	0	0.00
00618 NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	206	0	0.00	69	0	0.00	68	0	0.00	69	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	248	0	0.00	77	0	0.00	97	0	0.00	74	0	0.00
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	18	0	0.00	5	0	0.00	4	0	0.00	9	0	0.00
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	37	0	0.00	11	0	0.00	14	0	0.00	12	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	126	0	0.00	34	0	0.00	52	0	0.00	40	0	0.00
	Drinking Water	250.	126	0	0.00	34	0	0.00	52	0	0.00	40	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	122	0	0.00	33	0	0.00	51	0	0.00	38	0	0.00
00951 FLUORIDE, TOTAL AS F	Drinking Water	4.	48	0	0.00	13	0	0.00	20	0	0.00	15	0	0.00
01002 ARSENIC, TOTAL	Fresh Acute	360.	19	0	0.00	3	0	0.00	6	0	0.00	10	0	0.00
	Drinking Water	50.	19	0	0.00	3	0	0.00	6	0	0.00	10	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	2 &	0	0.00							2	0	0.00
	Drinking Water	5.	2 &	0	0.00							2	0	0.00
01034 CHROMIUM, TOTAL	Drinking Water	100.	32	0	0.00	4	0	0.00	12	0	0.00	16	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	31	2	0.06	4	0	0.00	12	1	0.08	15	1	0.07
	Drinking Water	1300.	31	0	0.00	4	0	0.00	12	0	0.00	15	0	0.00
01051 LEAD, TOTAL	Fresh Acute	82.	30	0	0.00	4	0	0.00	13	0	0.00	13	0	0.00
	Drinking Water	15.	30	4	0.13	4	0	0.00	13	1	0.08	13	3	0.23
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	9	0	0.00				5	0	0.00	4	0	0.00
	Drinking Water	100.	9	0	0.00				5	0	0.00	4	0	0.00
01067 NICKEL, TOTAL	Fresh Acute	1400.	10	0	0.00	2	0	0.00	3	0	0.00	5	0	0.00
	Drinking Water	100.	10	0	0.00	2	0	0.00	3	0	0.00	5	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	32	0	0.00	4	0	0.00	12	0	0.00	16	0	0.00
	Drinking Water	5000.	32	0	0.00	4	0	0.00	12	0	0.00	16	0	0.00
01147 SELENIUM, TOTAL	Fresh Acute	20.	7	0	0.00	2	0	0.00	2	0	0.00	3	0	0.00
	Drinking Water	50.	7	0	0.00	2	0	0.00	2	0	0.00	3	0	0.00
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	18	13	0.72	8	8	1.00	3	1	0.33	7	4	0.57
31506 COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	26	6	0.23	8	1	0.13	8	2	0.25	10	3	0.30
31614 FECAL COLIFORM, MPN, TUBE CONFIGURATION	Other-Hi Lim.	200.	4	1	0.25							4	1	0.25
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	111	51	0.46	50	28	0.56	29	8	0.28	32	15	0.47
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	278	77	0.28	79	26	0.33	110	33	0.30	89	18	0.20
34356 ENDOSULFAN, BETA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00
34361 ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1	0	0.00							1	0	0.00
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
	Drinking Water	1.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39300 P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39310 P,P' DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	4	0	0.00	2	0	0.00	1	0	0.00	1	0	0.00
39340 GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00							1	0	0.00
	Drinking Water	0.2	1	0	0.00							1	0	0.00
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00			
	Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00			
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39390 ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	1	0	0.00							1	0	0.00
	Drinking Water	3.	1	0	0.00							1	0	0.00
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00
	Drinking Water	0.4	1	0	0.00							1	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

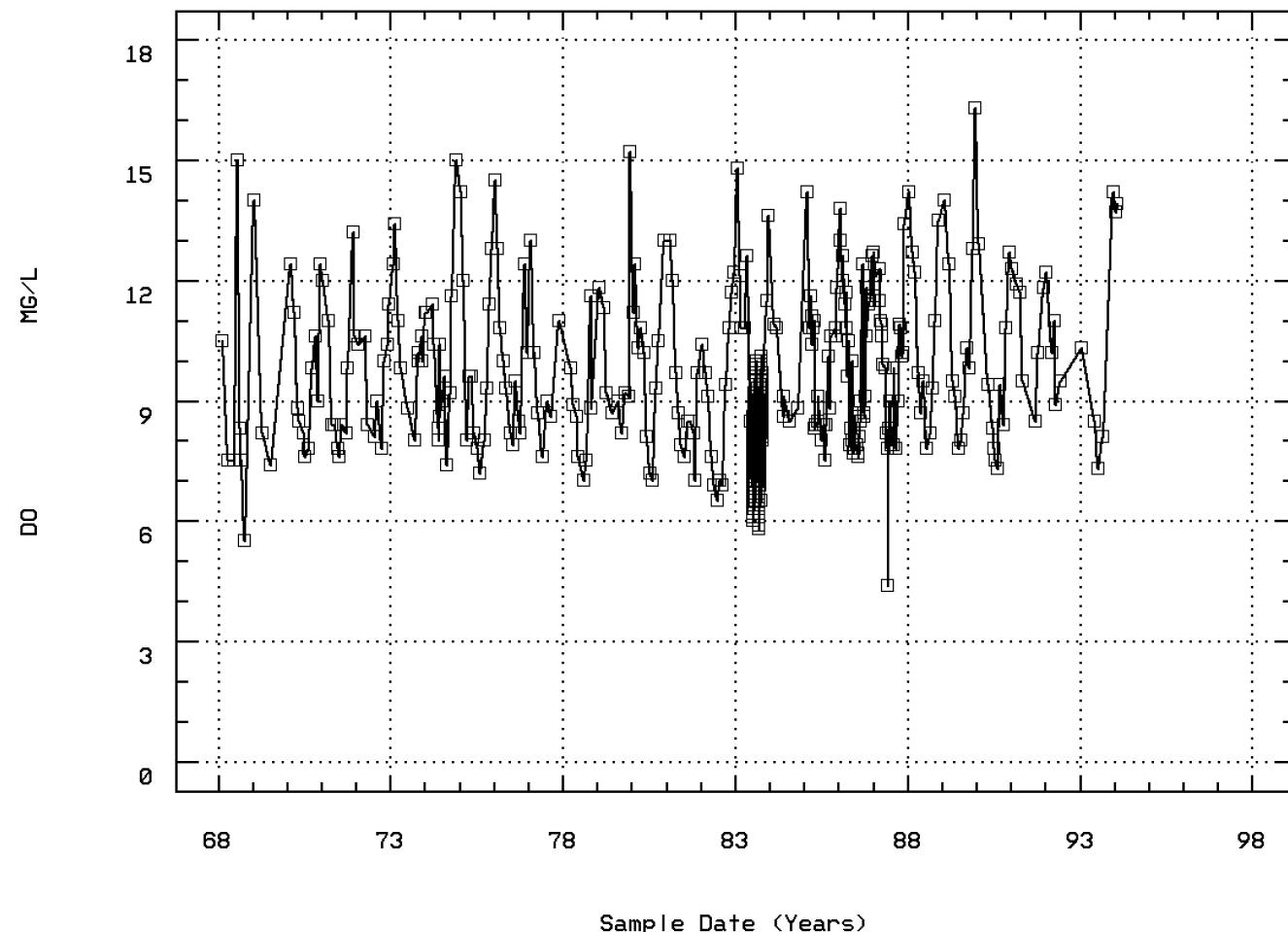
### EPA Water Quality Criteria Analysis for Station: RICH0116

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00										1	0	0.00
		Drinking Water	0.2	1	0	0.00										1	0	0.00
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	3.	1	0	0.00	1	0	0.00									
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00						
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00												
		Drinking Water	1.	2	0	0.00												
39730	2,4-D IN WHOLE WATER SAMPLE	Drinking Water	70.	1	0	0.00										1	0	0.00
		Drinking Water	50.	1	0	0.00										1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	3	0	0.00	3	0	0.00									
		Drinking Water	2.4	27&	1	0.04	5	1	0.20	11	0	0.00	11	0	0.00	11	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	27&	1	0.04	5	1	0.20	11	0	0.00	11	0	0.00			
		Drinking Water	2.	27&	1	0.04												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station: RICH0116 Parameter Code: 00300

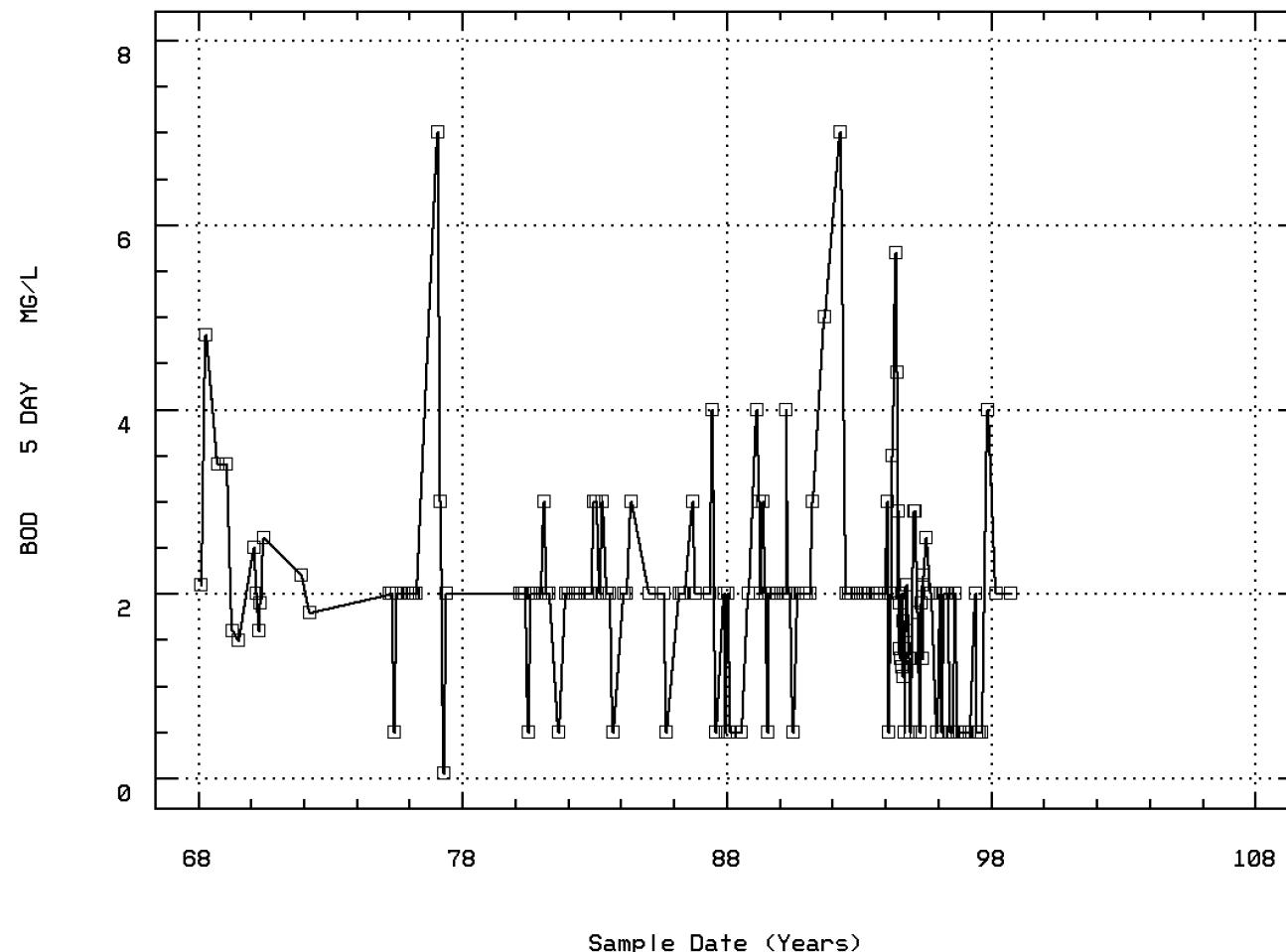
OXYGEN, DISSOLVED



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00310

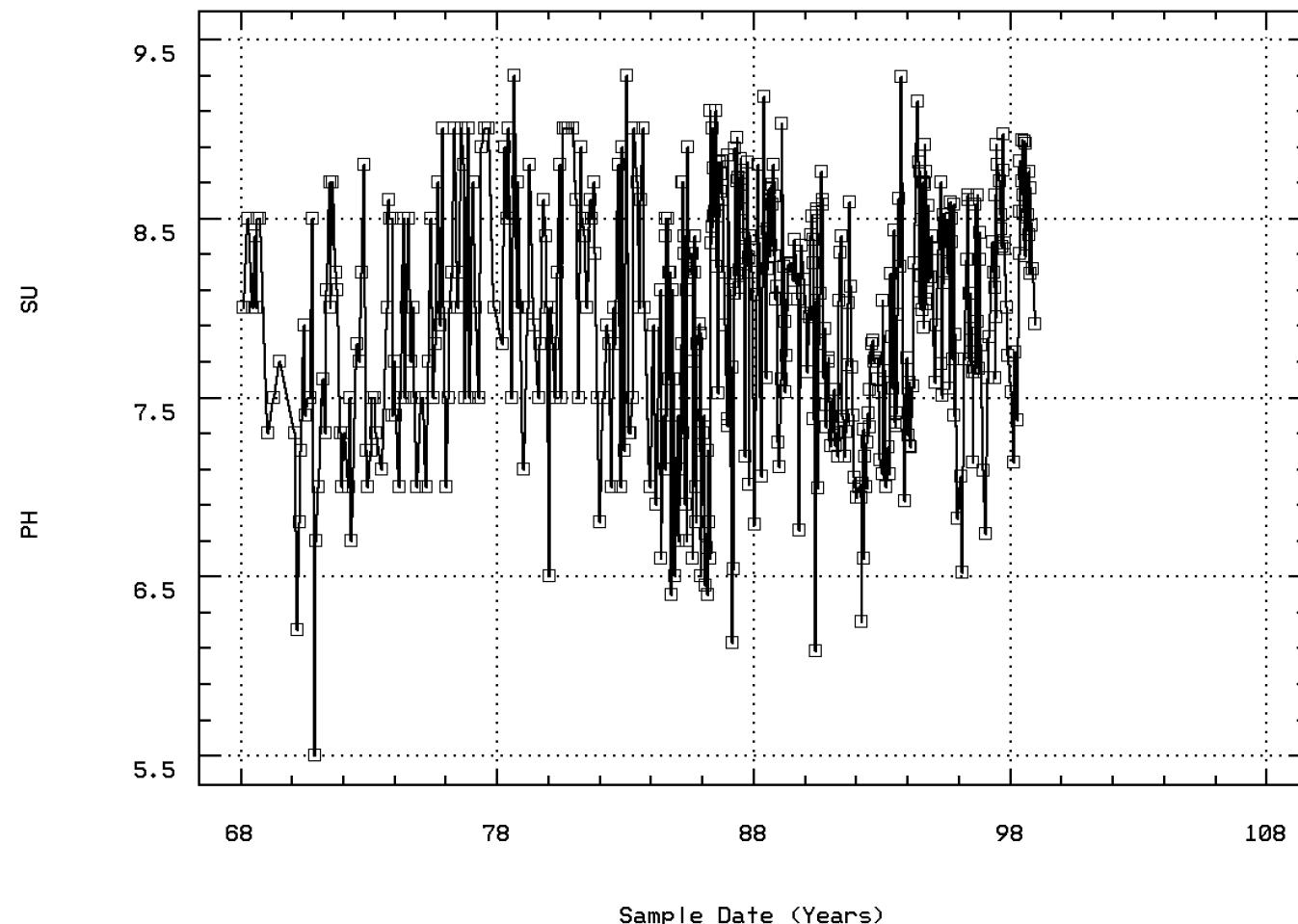
BOD, 5 DAY, 20 DEG C



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00400

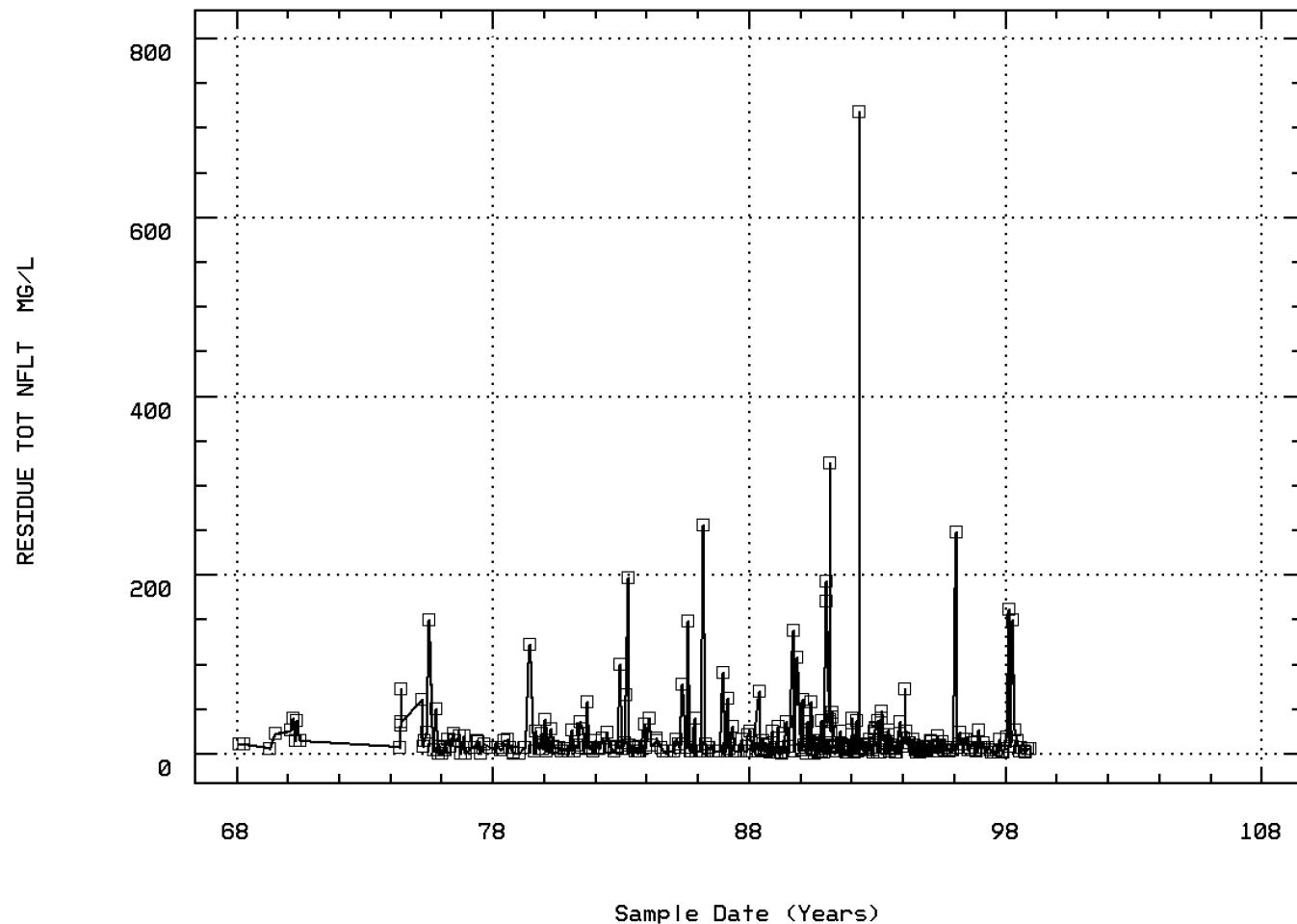
PH (STANDARD UNITS)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00530

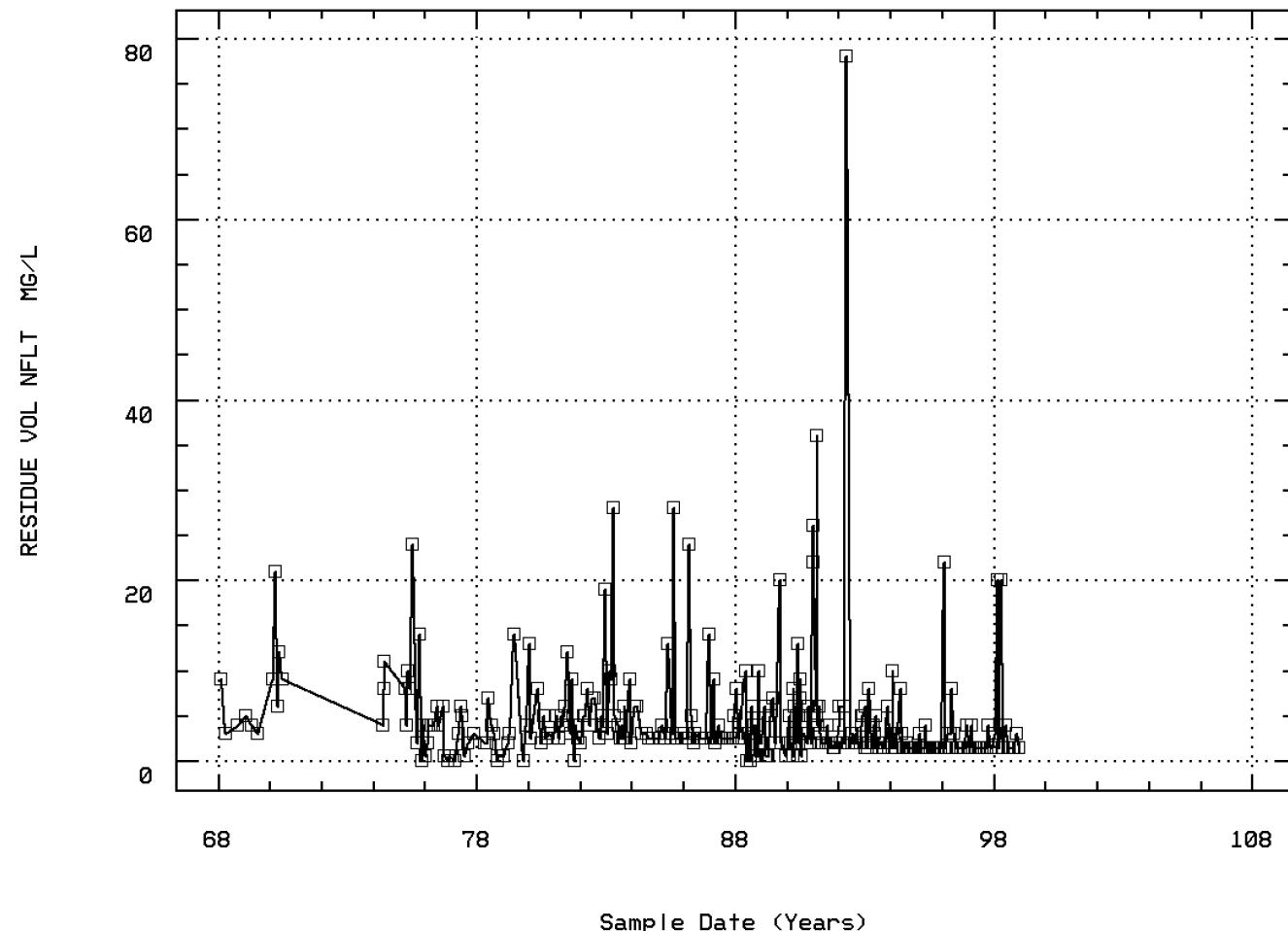
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00535

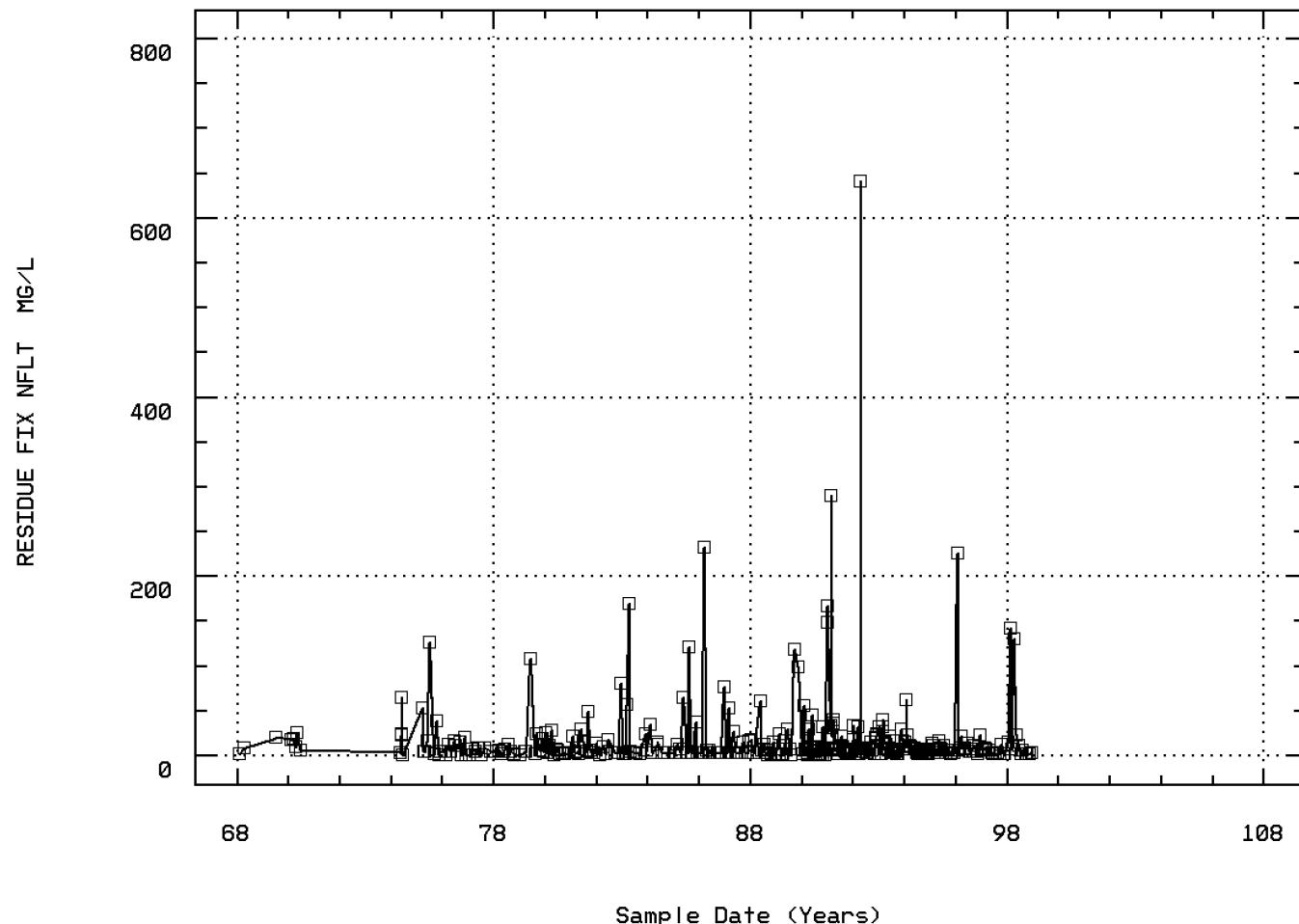
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00540

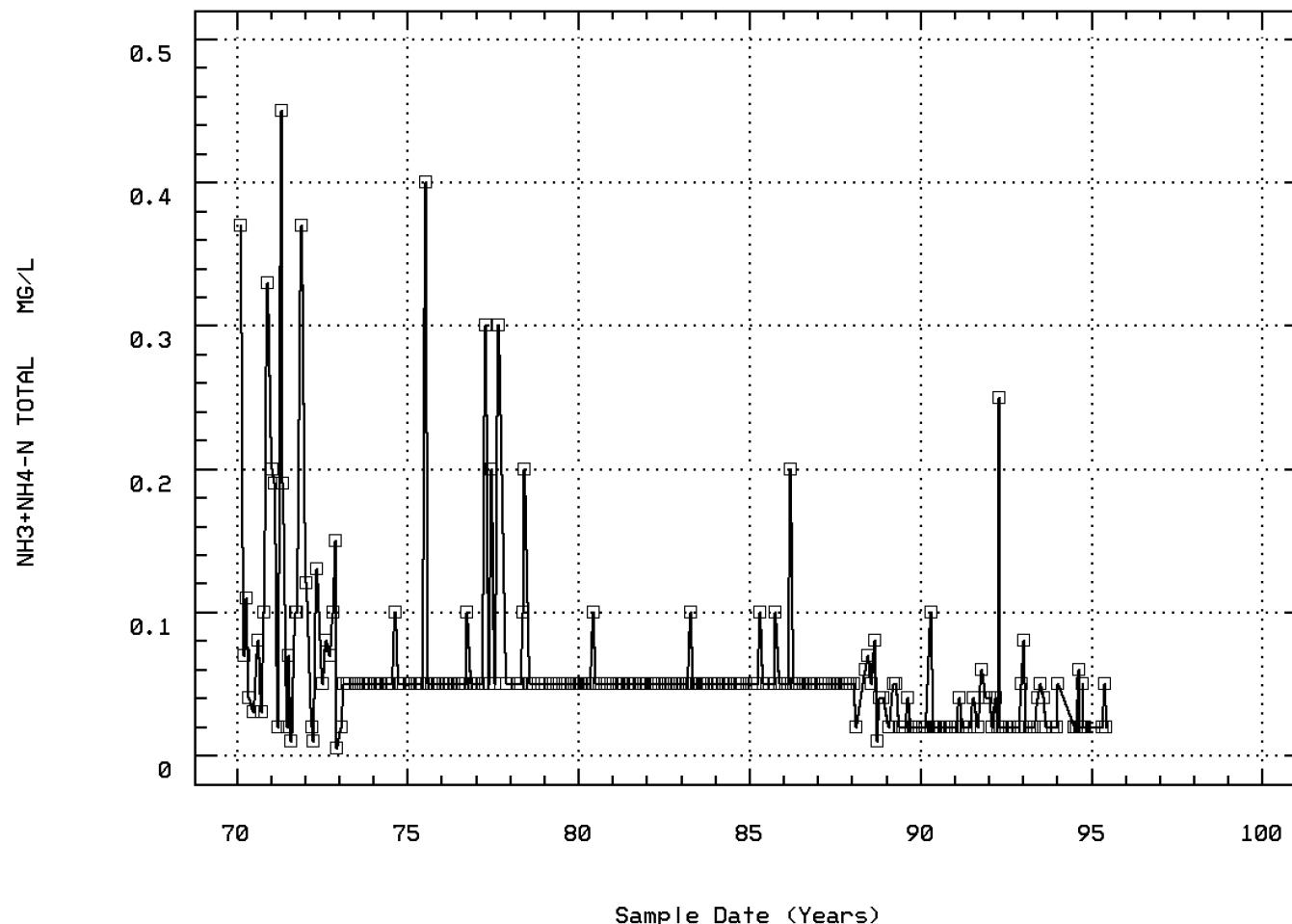
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00610

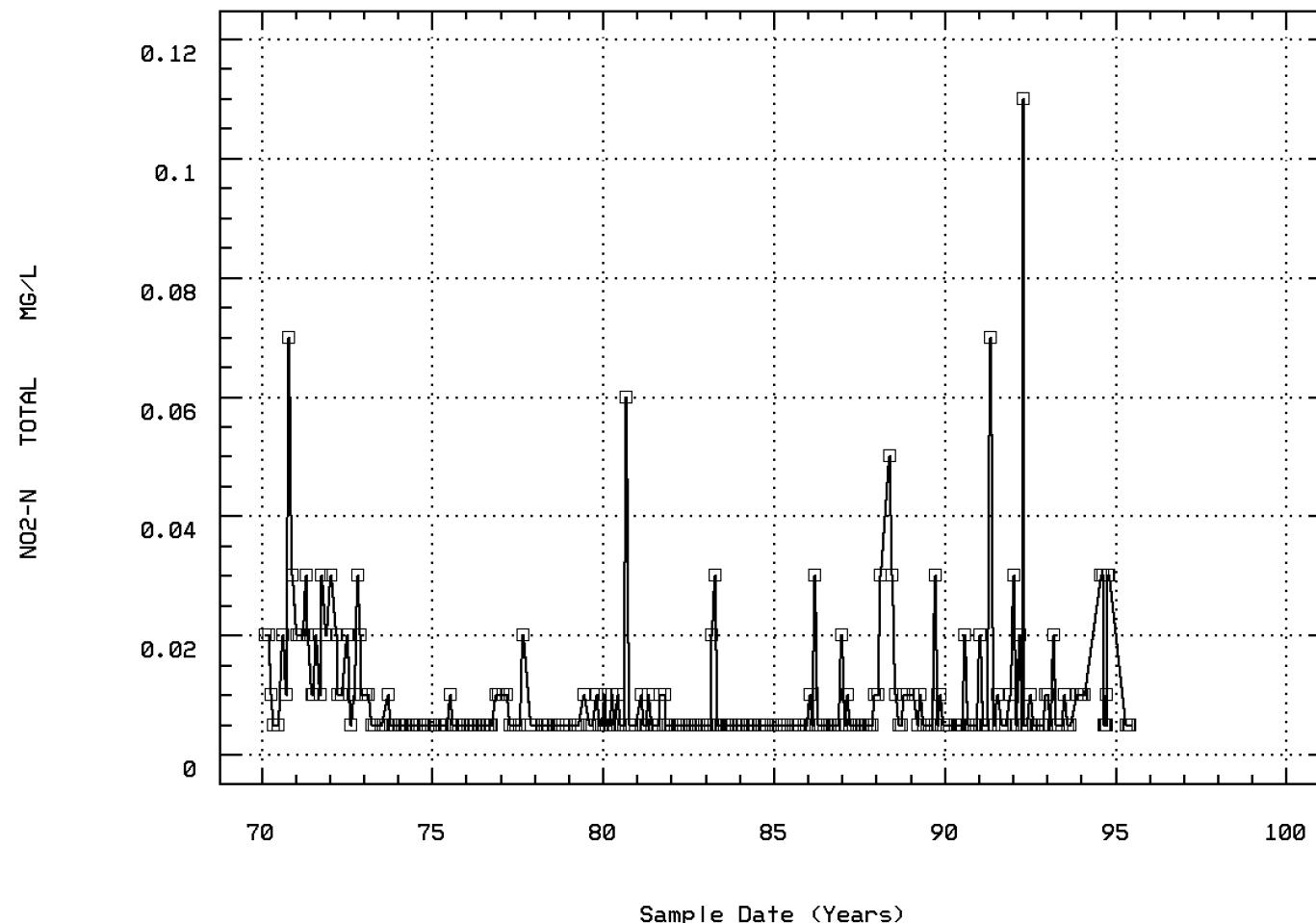
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00615

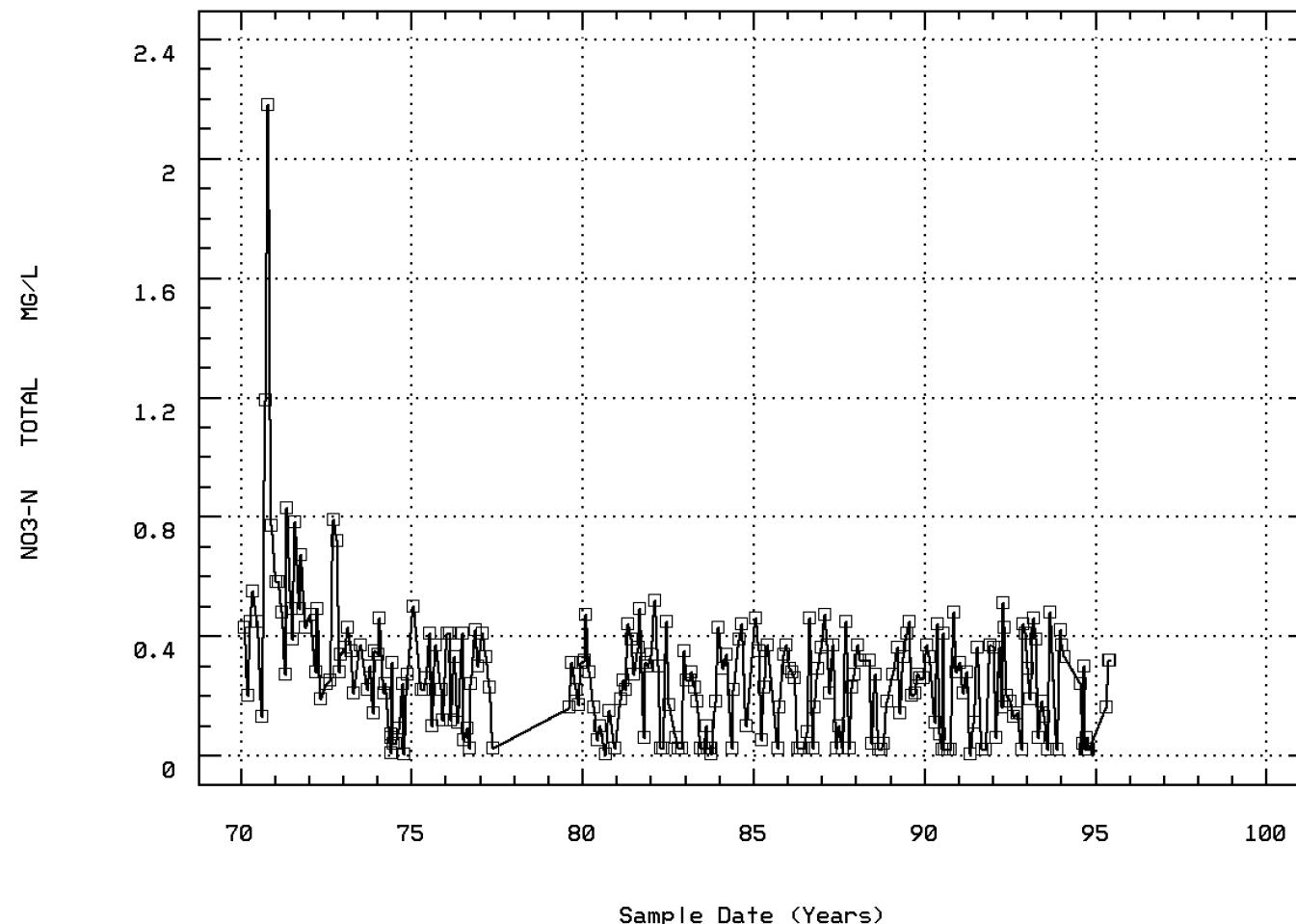
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00620

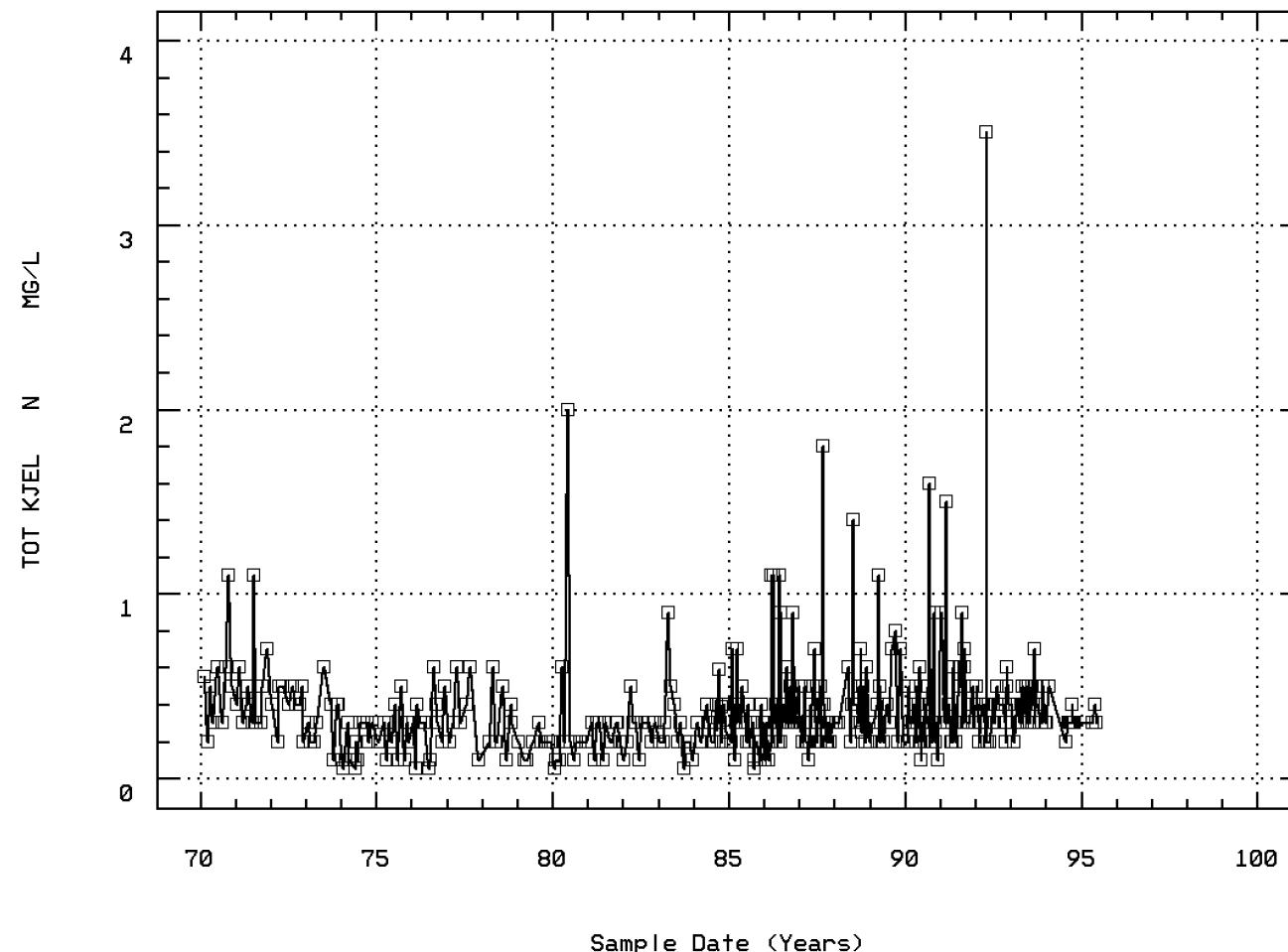
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00625

NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 360 BRIDGE

### Annual Analysis for 1968 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	7	25.6	21.686	30.	2.8	88.705	9.418	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	1	164.	164.	164.	0.	0.	0.	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	7	7.5	8.829	15.	5.5	9.589	3.097	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	3	3.4	3.433	4.8	2.1	1.823	1.35	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	7	8.4	8.271	8.5	8.	0.066	0.256	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	7	8.4	8.207	8.5	8.	0.071	0.266	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	7	0.004	0.006	0.01	0.003	0.	0.004	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	3	7.8	7.667	7.8	7.4	0.053	0.231	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	3	7.8	7.623	7.8	7.4	0.056	0.237	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	3	0.016	0.024	0.04	0.016	0.	0.014	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	3	43.	46.667	54.	43.	40.333	6.351	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	3	128.	159.	229.	120.	3691.	60.754	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	3	44.	46.333	56.	39.	76.333	8.737	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	2	82.5	82.5	84.	81.	4.5	2.121	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	2	11.	11.	11.	11.	0.	0.	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	3	4.	5.333	9.	3.	10.333	3.215	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	2	5.	5.	8.	2.	18.	4.243	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	2	9.	9.	11.	7.	8.	2.828	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	2	18.	18.	18.	18.	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	3	20.	16.667	27.8	2.2	172.173	13.121	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	3	8.2	9.867	14.	7.4	12.973	3.602	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	3	1.6	2.167	3.4	1.5	1.143	1.069	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	3	7.5	7.5	7.7	7.3	0.04	0.2	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	3	7.5	7.47	7.7	7.3	0.041	0.203	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	3	0.032	0.034	0.05	0.02	0.	0.015	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	3	6.7	6.867	7.3	6.6	0.143	0.379	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	3	6.7	6.777	7.3	6.6	0.155	0.394	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	3	0.2	0.167	0.251	0.05	0.011	0.104	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	3	29.	27.667	34.	20.	50.333	7.095	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	3	146.	139.	155.	116.	417.	20.421	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	3	43.	49.	63.	41.	148.	12.166	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	2	82.5	82.5	92.	73.	180.5	13.435	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	2	14.	14.	23.	5.	162.	12.728	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	3	4.	4.	5.	3.	1.	1.	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	2	10.5	10.5	20.	1.	180.5	13.435	**	**	**	**

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### Annual Analysis for 1970 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	11	14.4	15.4	26.7	3.3	81.428	9.024	3.52	5.6	25.	26.48
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	11	9.	9.664	12.4	7.6	3.065	1.751	7.64	8.2	11.2	12.4
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	5	2.	2.12	2.6	1.6	0.177	0.421	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	11	7.3	7.136	8.5	5.5	0.667	0.816	5.64	6.7	7.5	8.38
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	11	7.3	6.4	8.5	5.5	1.264	1.124	5.64	6.7	7.5	8.38
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	11	0.05	0.398	3.162	0.003	0.873	0.934	0.005	0.032	0.2	2.656
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	5	7.2	7.24	7.6	6.9	0.093	0.305	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	5	7.2	7.16	7.6	6.9	0.101	0.318	**	**	**	**

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### Annual Analysis for 1970 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	5	0.063	0.069	0.126	0.025	0.002	0.043	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	5	33.	37.4	53.	30.	84.3	9.182	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	5	159.	337.4	1078.	118.	172601.8	415.454	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	5	62.	223.4	921.	11.	152586.3	390.623	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	5	107.	114.	157.	72.	1284.5	35.84	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	5	26.	26.2	39.	14.	138.7	11.777	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	5	9.	11.4	21.	6.	33.3	5.771	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	5	17.	14.8	25.	5.	62.2	7.887	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.08	0.129	0.37	0.03	0.017	0.129	0.03	0.035	0.22	0.37
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.02	0.021	0.07	0.005	0.	0.02	0.005	0.008	0.025	0.07
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.45	0.705	2.179	0.13	0.403	0.635	0.13	0.315	0.98	2.179
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	9	0.5	0.517	1.099	0.2	0.069	0.262	0.2	0.3	0.6	1.099
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	2	1700.	1700.	3200.	200.	4500000.	2121.32	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	2	2.903	2.903	3.505	2.301	0.725	0.851	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		800.									
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	9##	0.05	0.05	0.1	0.025	0.	0.022	0.025	0.038	0.05	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	9	0.02	0.019	0.03	0.01	0.	0.009	0.01	0.01	0.03	0.03

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### Annual Analysis for 1971 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	11	20.	17.218	28.9	4.4	89.91	9.482	4.4	5.6	27.8	28.68
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	11	8.4	9.582	13.2	7.6	3.524	1.877	7.64	8.2	11.	12.96
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	1	2.2	2.2	2.2	0.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.	7.818	8.7	7.	0.382	0.618	7.	7.3	8.2	8.7
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.	7.483	8.7	7.	0.505	0.711	7.	7.3	8.2	8.7
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	11	0.01	0.033	0.1	0.002	0.001	0.037	0.002	0.006	0.05	0.1
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.1	0.156	0.45	0.01	0.021	0.144	0.012	0.02	0.2	0.434
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.02	0.019	0.03	0.01	0.	0.007	0.01	0.01	0.02	0.03
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.49	0.545	0.83	0.27	0.028	0.167	0.294	0.43	0.67	0.82
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	11	0.4	0.491	1.099	0.3	0.059	0.242	0.3	0.3	0.6	1.019
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	12	250.	11479.167	80000.	50.	621840662.879	24936.733	50.	50.	7150.	69200.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	12	2.301	2.734	4.903	1.699	1.501	1.225	1.699	1.699	3.843	4.825
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		542.35									
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	11##	0.064	0.064	0.1	0.05	0.001	0.023	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	11	0.03	0.029	0.06	0.01	0.	0.016	0.01	0.01	0.04	0.058

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### Annual Analysis for 1972 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	11	12.2	13.527	27.2	1.1	75.984	8.717	1.88	6.1	24.4	26.88
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	9	10	9.567	11.4	7.8	1.62	1.273	7.8	8.25	10.5	11.4
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	10	7.4	7.52	8.8	6.7	0.397	0.63	6.73	7.	7.9	8.74
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	10	7.389	7.231	8.8	6.7	0.49	0.7	6.73	7.	7.9	8.74
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	10	0.041	0.059	0.2	0.002	0.004	0.061	0.002	0.013	0.1	0.19
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	10	0.075	0.074	0.15	0.005	0.003	0.052	0.006	0.018	0.123	0.148
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	10	0.015	0.017	0.03	0.005	0.	0.009	0.006	0.01	0.023	0.03
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	10	0.31	0.405	0.79	0.19	0.044	0.209	0.195	0.248	0.548	0.783
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	10	0.4	0.4	0.5	0.2	0.013	0.115	0.2	0.35	0.5	0.5
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	10##	50.	320.	1300.	50.	244555.556	494.526	50.	50.	450.	1290.

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### Annual Analysis for 1972 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	10 ##	1.699	2.099	3.114	1.699	0.337	0.58	1.699	1.699	2.496	3.11
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	125.574								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	10	0.03	0.026	0.04	0.005	0.	0.013	0.006	0.01	0.04	0.04

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### Annual Analysis for 1973 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	10	13.85	14.88	28.9	3.3	56.653	7.527	3.64	10.	20.55	28.23
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	10	10.1	10.42	13.4	8.	2.493	1.579	8.08	9.55	11.35	13.3
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	10	7.5	7.76	8.6	7.1	0.343	0.585	7.11	7.275	8.5	8.59
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	10	7.5	7.502	8.6	7.1	0.416	0.645	7.11	7.275	8.5	8.59
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	10	0.032	0.031	0.079	0.003	0.001	0.027	0.003	0.003	0.053	0.078
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	9 ##	0.05	0.047	0.05	0.02	0.	0.01	0.02	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9 ##	0.005	0.007	0.01	0.005	0.	0.003	0.005	0.005	0.01	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.35	0.303	0.43	0.14	0.009	0.094	0.14	0.215	0.365	0.43
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	9	0.3	0.322	0.6	0.1	0.022	0.148	0.1	0.2	0.4	0.6
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	9 ##	50.	177.778	1000.	50.	97569.444	312.361	50.	50.	150.	1000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	9 ##	1.699	1.944	3.	1.699	0.201	0.448	1.699	1.699	2.151	3.
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	87.876								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	9 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	9 ##	0.05	0.049	0.1	0.01	0.001	0.024	0.01	0.04	0.05	0.05

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### Annual Analysis for 1974 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	13	18.9	17.4	27.8	6.7	49.643	7.046	6.9	10.55	22.8	27.36
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	14	10.	10.093	15.	7.4	3.847	1.961	7.7	8.525	11.25	13.3
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	14	7.5	7.664	8.5	7.	0.209	0.457	7.	7.475	8.	8.5
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	14	7.5	7.479	8.5	7.	0.245	0.495	7.	7.475	8.	8.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	14	0.032	0.033	0.1	0.003	0.001	0.031	0.003	0.01	0.034	0.1
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	2	7.4	7.4	7.5	7.3	0.02	0.141	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	2	7.389	7.389	7.5	7.3	0.02	0.142	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	2	0.041	0.041	0.05	0.032	0.	0.013	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	02/18/68-12/15/98	2	40.	40.	40.	40.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	4	108.	112.5	140.	94.	379.667	19.485	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	4	47.	49.25	76.	27.	577.583	24.033	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	4	77.	63.25	81.	18.	913.583	30.226	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	5	31.	29.2	72.	1.	789.2	28.093	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	5	8.	6.4	11.	1.	15.3	3.912	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	5	23	22.8	64.	0.	652.7	25.548	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	14 ##	0.05	0.054	0.1	0.05	0.	0.013	0.05	0.05	0.05	0.075
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	14 ##	0.005	0.005	0.005	0.	0.005	0.	0.005	0.005	0.005	0.005
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	14	0.15	0.17	0.46	0.005	0.021	0.144	0.008	0.04	0.28	0.4
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	14	0.2	0.186	0.3	0.05	0.01	0.101	0.05	0.1	0.3	0.3
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	2	4.5	4.5	5.	4.	0.5	0.707	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	14	150.	1178.571	6000.	50.	4370274.725	2090.52	50.	50.	1400.	5400.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	14	2.151	2.391	3.778	1.699	0.583	0.763	1.699	1.699	2.927	3.73
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	245.88								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	14 ##	0.05	0.05	0.05	0.	0.	0.	0.05	0.05	0.05	0.05

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### Annual Analysis for 1974 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	14 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05

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### Annual Analysis for 1975 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	11	13.9	15.964	25.6	5.6	53.911	7.342	5.82	10.	24.4	25.6
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	12	9.45	9.842	14.2	7.2	5.079	2.254	7.38	8.	11.85	13.78
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	9	1.	1.389	2.	0.5	0.361	0.601	0.5	1.	2.	2.
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	11	7.8	7.918	9.	7.	0.356	0.596	7.1	7.5	8.5	8.94
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	11	7.8	7.627	9.	7.	0.449	0.67	7.1	7.5	8.5	8.94
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	11	0.016	0.024	0.1	0.001	0.001	0.028	0.001	0.003	0.032	0.086
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	9	14.	35.333	150.	0.	2285.	47.802	0.	6.	55.	150.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	9	8.	8.222	24.	0.	53.444	7.311	0.	3.	12.	24.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	9	4.	27.333	126.	0.	1701.	41.243	0.	3.	45.	126.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.05	0.082	0.4	0.05	0.011	0.106	0.05	0.05	0.05	0.33
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.22	0.269	0.5	0.1	0.018	0.133	0.1	0.17	0.39	0.5
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	11	0.2	0.245	0.5	0.1	0.017	0.129	0.1	0.1	0.3	0.48
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	10	6.	6.	9.	3.	2.667	1.633	3.2	5.	6.5	8.9
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	1	15.	15.	15.	15.	0.	0.	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11 ##	50.	54.545	100.	50.	227.273	15.076	50.	50.	50.	90.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11 ##	1.699	1.726	2.	1.699	0.008	0.091	1.699	1.699	1.699	1.94
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	53.252								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	11 ##	0.05	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	10 ##	0.05	0.043	0.06	0.005	0.	0.017	0.007	0.035	0.05	0.059

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	11	14.4	15.7	28.9	4.4	77.22	8.787	4.74	6.7	25.	28.24
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	12	9.75	10.192	14.5	7.9	4.361	2.088	7.99	8.275	12.	13.99
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	7	2.	1.571	2.	1.	0.286	0.535	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	12	8.1	8.142	9.	7.	0.475	0.689	7.15	7.5	8.95	9.
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	12	8.089	7.714	9.	7.	0.675	0.822	7.15	7.5	8.95	9.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	12	0.008	0.019	0.1	0.001	0.001	0.028	0.001	0.001	0.032	0.079
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	8.	10.136	22.	5.	72.255	8.5	0.5	0.5	20.	21.6
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	4.	2.864	6.	0.	5.055	2.248	0.1	0.5	4.	6.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	10	7.	8.1	20.	0.	52.489	7.245	0.05	0.5	14.5	19.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	12 ##	0.05	0.054	0.1	0.05	0.	0.014	0.05	0.05	0.05	0.085
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	12 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	12	0.27	0.243	0.42	0.25	0.024	0.156	0.033	0.095	0.41	0.417
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	12	0.3	0.292	0.6	0.05	0.029	0.172	0.05	0.125	0.4	0.57
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	12	5.	5.417	9.	3.	2.811	1.676	3.	5.	6.75	8.4
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	12 ##	50.	95.833	500.	50.	16571.97	128.732	50.	50.	87.5	380.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	12 ##	1.699	1.832	2.699	1.699	0.088	0.297	1.699	1.699	1.925	2.489
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	67.995								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	12 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	12	0.025	0.026	0.07	0.005	0.	0.018	0.007	0.01	0.038	0.061

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	7	3.	4.986	13.	0.	24.425	4.942	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	7	9.	9.729	13.	7.6	3.322	1.823	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	4	2.5	3.013	7.	0.05	8.567	2.927	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	7	8.7	8.443	9.	7.5	0.363	0.602	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	7	8.7	8.09	9.	7.5	0.508	0.713	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	7	0.002	0.008	0.032	0.001	0.	0.011	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	8	7.	7.438	14.	0.5	24.388	4.938	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	8	2.5	2.563	6.	0.	4.531	2.129	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	8	5.5	4.938	8.	0.	11.174	3.343	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	8##	0.05	0.131	0.3	0.05	0.014	0.116	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	8##	0.005	0.008	0.02	0.005	0.	0.005	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	4	0.28	0.249	0.41	0.025	0.028	0.166	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	8	0.35	0.438	1.	0.1	0.083	0.288	**	**	**	**
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	8	5.5	5.5	8.	3.	3.714	1.927	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	7##	50.	64.286	100.	50.	595.238	24.398	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	7##	1.699	1.785	2.	1.699	0.022	0.147	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				60.951								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	8##	0.05	0.087	0.3	0.05	0.008	0.088	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	8	0.025	0.023	0.04	0.005	0.	0.015	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	8	16.5	14.438	29.	1.	78.103	8.838	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	9	8.8	8.733	11.6	7.	1.903	1.379	7.	7.55	9.35	11.6
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	9	8.7	8.489	9.3	7.5	0.359	0.599	7.5	7.9	8.95	9.3
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	9	8.7	8.126	9.3	7.5	0.507	0.712	7.5	7.9	8.95	9.3
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	9	0.002	0.007	0.032	0.001	0.	0.01	0.001	0.001	0.013	0.032
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	1	57.	57.	57.	57.	57.	0.	0.	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	8	6.	6.938	16.	0.5	29.746	5.454	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	8	2.	2.438	7.	0.	5.103	2.259	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	8	4.	4.563	12.	0.5	13.103	3.62	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	8##	0.05	0.075	0.2	0.05	0.003	0.053	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	8##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	8	0.25	0.313	0.6	0.1	0.03	0.173	**	**	**	**
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	8	7.	6.375	11.	3.	8.268	2.875	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	8##	50.	275.	1800.	50.	380000.	616.441	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	8##	1.699	1.931	3.255	1.699	0.297	0.545	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				85.337								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	8##	0.05	0.081	0.2	0.05	0.003	0.053	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	8##	0.008	0.028	0.1	0.005	0.002	0.039	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	9	14.	14.444	26.	4.5	59.028	7.683	4.5	7.5	22.25	26.
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	5	127.	126.4	147.	100.	333.8	18.27	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	9	9.2	10.189	15.2	8.2	4.959	2.227	8.2	8.85	11.55	15.2

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### Annual Analysis for 1979 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	6	1.	1.	1.	1.	0.	0.	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	5	10.	11.6	20.	8.	22.8	4.775	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	9	8.	8.011	8.8	7.1	0.284	0.533	7.1	7.65	8.5	8.8
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	9	8.	7.73	8.8	7.1	0.372	0.61	7.1	7.65	8.5	8.8
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	9	0.01	0.019	0.079	0.002	0.001	0.025	0.002	0.003	0.024	0.079
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	3	100.	96.333	102.	87.	66.333	8.145	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	3	21.	21.333	22.	21.	0.333	0.577	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	3	78.	75.	81.	66.	63.	7.937	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	9	6.	21.833	122.	0.5	1486.5	38.555	0.5	4.	24.	122.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	9	1.	2.944	14.	0.	18.778	4.333	0.	0.75	3.5	14.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	9	4.	18.944	108.	0.5	1181.028	34.366	0.5	3.	21.5	108.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	9##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.008	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	5	0.22	0.234	0.31	0.16	0.005	0.073	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	9	0.2	0.189	0.3	0.1	0.004	0.06	0.1	0.15	0.2	0.3
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	5##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	5	0.03	0.034	0.05	0.02	0.	0.011	**	**	**	**
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	9	6.	6.667	11.	3.	7.5	2.739	3.	4.5	9.5	11.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	8	100.	306.25	1100.	50.	166741.071	408.339	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	8	2.	2.168	3.041	1.699	0.291	0.539	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			147.164								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	4##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	4	0.02	0.024	0.05	0.05	0.	0.019	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	11	17.5	16.409	32.5	2.5	85.291	9.235	3.2	7.5	24.	30.8
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	8	148.	175.	318.	99.	5640.	75.1	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	3	234.	225.	330.	111.	12051.	109.777	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	11	10.3	10.	13.	7.	3.816	1.953	7.04	8.1	11.2	12.88
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	11	2.	1.5	2.	0.5	0.35	0.592	0.6	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	11	9.	8.955	18.	0.5	19.423	4.407	1.6	6.	11.	16.8
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.2	8.209	9.	6.5	0.699	0.836	6.7	7.5	9.	9.
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.2	7.421	9.	6.5	1.382	1.176	6.7	7.5	9.	9.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	11	0.006	0.038	0.316	0.001	0.009	0.093	0.001	0.001	0.032	0.259
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	7.	10.864	38.	2.5	132.855	11.526	2.5	2.5	12.	36.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	2.5	3.773	13.	1.	13.618	3.69	1.	1.	5.	12.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	2.5	7.773	27.	0.	89.818	9.477	0.4	2.	11.	26.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11##	0.005	0.011	0.06	0.005	0.	0.016	0.005	0.005	0.01	0.05
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.15	0.173	0.47	0.05	0.024	0.155	0.005	0.038	0.3	0.47
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	11	0.2	0.359	2.	0.05	0.317	0.563	0.06	0.1	0.2	1.72
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	8	0.1	0.119	0.3	0.05	0.008	0.088	**	**	**	**
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	8	0.025	0.039	0.1	0.01	0.001	0.034	**	**	**	**
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	11	8.	7.909	10.	6.	1.291	1.136	6.2	7.	9.	9.8
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11##	50.	136.364	400.	50.	17045.455	130.558	50.	50.	300.	380.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11##	1.699	1.977	2.602	1.699	0.136	0.368	1.699	1.699	2.477	2.577
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			94.904								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	3##	0.05	0.067	0.1	0.05	0.001	0.029	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	3	0.05	0.04	0.05	0.02	0.	0.017	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	11	15.	16.727	28.	3.	82.818	9.1	3.4	6.	26.	27.6
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	11	206.	209.727	314.	120.	3909.018	62.522	125.4	155.	263.	305.
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	11	8.5	9.164	13.	7.	3.409	1.846	7.12	7.9	9.7	12.8
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	11	1.	1.409	3.	0.5	0.541	0.735	0.6	1.	2.	2.8
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	11	14.	14.091	21.	6.	27.691	5.262	6.2	10.	20.	20.8
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.5	8.318	8.9	7.5	0.216	0.464	7.5	8.	8.6	8.86
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.5	8.055	8.9	7.5	0.292	0.54	7.5	8.	8.6	8.86
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	11	0.003	0.009	0.032	0.001	0.	0.012	0.001	0.003	0.01	0.032
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	7.	16.818	58.	2.5	313.514	17.706	2.5	5.	27.	53.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	4.	4.818	12.	0.	10.914	3.304	0.5	2.5	6.	11.4
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	4.	12.455	49.	2.	228.423	15.114	2.1	2.5	21.	45.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11##	0.005	0.007	0.01	0.005	0.	0.003	0.005	0.005	0.01	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.3	0.298	0.49	0.06	0.015	0.121	0.086	0.22	0.39	0.48
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	11	0.3	0.236	0.3	0.1	0.007	0.081	0.1	0.2	0.3	0.3
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	11	0.1	0.095	0.2	0.05	0.002	0.042	0.05	0.05	0.1	0.18
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	11	0.05	0.068	0.17	0.04	0.001	0.038	0.04	0.04	0.08	0.154
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	11	8.	9.364	29.	1.	52.655	7.256	1.6	5.	10.	25.8
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	9	100.	88.889	200.	50.	2361.111	48.591	50.	50.	100.	200.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	9	2.	1.9	2.301	1.699	0.045	0.213	1.699	1.699	2.	2.301
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	79.37								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	12	15.75	17.083	31.	0.5	77.402	8.798	2.75	12.	25.5	29.5
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	11	148.	179.182	522.	109.	13901.764	117.906	109.4	114.	193.	457.4
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	12	9.25	9.017	12.2	6.5	4.038	2.009	6.62	6.925	10.7	12.05
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	11	2.	1.727	3.	1.	0.418	0.647	1.	1.	2.	2.8
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	11	10.	12.364	24.	5.	36.855	6.071	5.2	8.	19.	23.
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	12	7.65	7.683	8.9	6.8	0.447	0.669	6.86	7.05	7.975	8.87
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	12	7.625	7.345	8.9	6.8	0.572	0.756	6.86	7.05	7.975	8.87
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	12	0.024	0.045	0.158	0.001	0.002	0.05	0.001	0.011	0.091	0.141
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	8.	17.955	99.	2.5	762.523	27.614	3.	6.	17.	84.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	5.	6.227	19.	2.	21.368	4.623	2.1	4.	7.	16.8
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	3.	11.955	80.	0.	539.723	23.232	0.2	1.	13.	67.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.17	0.208	0.52	0.025	0.036	0.19	0.025	0.025	0.35	0.506
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	11	0.3	0.259	0.5	0.1	0.012	0.111	0.1	0.2	0.3	0.46
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	11##	0.05	0.077	0.3	0.05	0.006	0.075	0.05	0.05	0.05	0.26
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	11	0.03	0.039	0.1	0.02	0.001	0.024	0.02	0.02	0.05	0.092
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	11	5.	6.273	27.	1.	49.818	7.058	1.2	4.	5.	23.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	10	150.	360.	2200.	50.	437111.111	661.144	50.	50.	275.	2030.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	10	2.151	2.174	3.342	1.699	0.291	0.54	1.699	1.699	2.401	3.278
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	149.292								

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### Annual Analysis for 1983 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	2008	28.	27.018	34.	1.	15.633	3.954	20.45	25.5	29.5	31.
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	12	141.5	157.667	239.	111.	1973.879	44.428	111.9	124.75	189.	236.9
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	2008	7.9	7.981	14.8	5.8	0.795	0.892	6.9	7.3	8.6	9.1
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	9	2.	1.722	3.	0.5	0.819	0.905	0.5	1.	2.5	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	10	8.	10.6	23.	5.	34.711	5.892	5.1	6.75	13.75	22.6
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.	8.155	9.3	7.	0.651	0.807	7.06	7.3	9.	9.24
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	11	8.	7.628	9.3	7.	0.955	0.977	7.06	7.3	9.	9.24
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	11	0.01	0.024	0.1	0.001	0.001	0.032	0.001	0.001	0.05	0.09
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	1	7.6	7.6	7.6	0.	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	1	7.6	7.6	7.6	0.	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	3	53.	59.333	74.	51.	162.333	12.741	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	14	7.	25.786	197.	2.5	2725.489	52.206	2.5	2.5	17.25	131.5
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	14	4.	6.429	28.	2.	46.033	6.785	2.25	2.5	9.	19.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	10	3.5	27.05	169.	2.	2793.025	52.849	2.	2.	32.25	157.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	16 ##	0.05	0.053	0.1	0.05	0.	0.013	0.05	0.05	0.05	0.065
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	17 ##	0.005	0.007	0.03	0.005	0.	0.007	0.005	0.005	0.005	0.022
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	17 ##	0.025	0.124	0.43	0.003	0.016	0.128	0.021	0.025	0.24	0.31
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	12	0.2	0.296	0.9	0.05	0.051	0.226	0.065	0.2	0.375	0.78
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	12	0.1	0.098	0.2	0.05	0.003	0.055	0.05	0.05	0.123	0.2
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	12	0.065	0.067	0.13	0.02	0.001	0.034	0.023	0.035	0.098	0.121
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	12	4.5	5.083	13.	2.	10.447	3.232	2.	2.25	6.	11.8
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	11	100.	573.636	4900.	50.	2071865.455	1439.398	50.	50.	230.	4000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	11	2.	2.165	3.69	1.699	0.373	0.61	1.699	1.699	2.362	3.473
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =		146.113							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	19	24.	21.489	29.	4.	42.355	6.508	10.5	19.	25.2	28.
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	17	138.	143.118	189.	85.	1064.985	32.634	90.6	121.5	173.5	187.4
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	13	9.1	9.438	13.7	7.9	2.164	1.471	7.94	8.5	9.7	12.38
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	6	8.95	9.45	10.9	8.5	1.219	1.104	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	7	1.	1.571	3.	1.	0.619	0.787	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	7	9.	8.143	11.	3.	7.81	2.795	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	18	7.75	7.661	8.5	6.4	0.517	0.719	6.49	7.05	8.25	8.5
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	18	7.725	7.123	8.5	6.4	0.823	0.907	6.49	7.05	8.25	8.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	18	0.019	0.075	0.398	0.003	0.015	0.12	0.003	0.006	0.091	0.324
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	1	0.013	0.013	0.013	0.013	0.	0.	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	7	9.	13.143	40.	2.5	172.393	13.13	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	7	3.	3.714	6.	2.5	2.488	1.577	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	7	3.	10.143	34.	2.5	134.393	11.593	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12 ##	0.025	0.035	0.08	0.01	0.	0.019	0.013	0.025	0.05	0.071
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	7 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	11 ##	0.005	0.015	0.04	0.005	0.	0.016	0.005	0.005	0.04	0.04
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	7 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	8	0.305	0.258	0.35	0.25	0.025	0.012	0.11	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	7	0.29	0.258	0.44	0.25	0.023	0.152	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	19	0.3	0.315	0.59	0.2	0.01	0.099	0.2	0.25	0.4	0.4
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	19	0.13	0.156	0.4	0.02	0.009	0.097	0.05	0.09	0.2	0.3
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	13	0.09	0.117	0.27	0.02	0.005	0.069	0.032	0.075	0.17	0.242
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	20	0.105	0.123	0.34	0.005	0.009	0.093	0.012	0.06	0.185	0.294

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	20	4.	4.4	10.	2.	3.937	1.984	2.1	3.	5.	7.8
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	1	11.8	11.8	11.8	11.8	0.	0.	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	9	8700.	8413.333	11840.	3400.	5859800.	2420.702	3400.	7100.	10000.	11840.
31616p	fecal coliform,membr filter,m-fc broth,44.5 c	11/23/70-02/17/94	8##	75.	191.25	930.	50.	91755.357	302.911	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	8##	1.849	2.008	2.968	1.699	0.199	0.446	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	101.9								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	28	22.75	19.111	30.5	0.	70.872	8.419	6.42	12.625	25.	28.1
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	28	157.	152.179	210.	57.	1694.004	41.158	88.	122.5	184.25	205.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	17	0.	0.006	0.1	0.	0.001	0.024	0.	0.	0.	0.02
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	17	9.8	9.871	13.8	7.8	2.57	1.603	8.12	8.5	11.1	12.04
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	22	10.25	9.891	14.2	7.5	2.67	1.634	8.09	8.4	10.85	11.74
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	11	1.	1.136	2.	0.5	0.205	0.452	0.6	1.	1.	2.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	11	8.	10.455	30.	4.	49.673	7.048	4.6	7.	11.	27.
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	28	7.83	7.714	8.9	6.5	0.517	0.719	6.69	7.025	8.3	8.7
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	28	7.829	7.213	8.9	6.5	0.778	0.882	6.69	7.025	8.3	8.7
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	28	0.015	0.061	0.316	0.001	0.008	0.087	0.002	0.005	0.095	0.205
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	6.	28.455	148.	2.5	2097.973	45.804	2.5	2.5	40.	133.8
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	3.	6.045	28.	2.5	62.523	7.907	2.5	2.5	4.	25.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	11	3.	23.227	120.	2.5	1416.368	37.635	2.5	2.5	37.	108.8
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	17##	0.025	0.034	0.05	0.025	0.	0.012	0.025	0.025	0.05	0.05
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	9##	0.05	0.061	0.1	0.05	0.	0.022	0.05	0.05	0.075	0.1
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	17##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	17	0.23	0.236	0.6	0.025	0.033	0.182	0.025	0.063	0.395	0.488
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.34	0.262	0.46	0.025	0.024	0.154	0.025	0.105	0.37	0.46
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	23	0.3	0.289	0.7	0.05	0.029	0.171	0.1	0.2	0.4	0.62
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	23	0.1	0.104	0.2	0.05	0.002	0.046	0.054	0.07	0.12	0.2
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	17	0.07	0.07	0.12	0.02	0.001	0.03	0.02	0.05	0.1	0.112
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	26	0.07	0.073	0.13	0.005	0.001	0.029	0.04	0.05	0.093	0.113
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	28	4.	4.75	12.	1.	5.157	2.271	2.9	4.	5.	8.3
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	17	7560.	6833.176	13000.	4.	10056531.529	3171.203	2560.8	4550.	9100.	10520.
31616p	fecal coliform,membr filter,m-fc broth,44.5 c	11/23/70-02/17/94	27	50.	302.648	2400.	1.5	388458.343	623.264	13.8	40.	230.	1100.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	27	1.699	1.92	3.38	0.176	0.48	0.692	1.132	1.602	2.362	2.995
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	83.092								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	31	21.	18.3	32.	2.	84.49	9.192	6.	9.	26.5	29.8
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	29	169.	163.828	280.	30.	4601.933	67.838	85.	105.	215.	251.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	17	0.	0.006	0.1	0.	0.001	0.024	0.	0.	0.	0.02
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	19	8.8	9.911	14.5	7.9	4.404	2.099	8.1	8.4	11.8	14.
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	32	9.8	10.025	13.8	7.6	3.65	1.91	7.73	8.15	11.675	12.6
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	12	1.	1.5	3.	1.	0.455	0.674	1.	1.	2.	2.7
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	12	12.5	12.333	23.	4.	26.424	5.14	4.9	8.5	15.5	21.5
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	32	8.405	8.002	9.1	6.4	0.759	0.871	6.618	7.31	8.718	8.946
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	32	8.403	7.227	9.1	6.4	1.377	1.174	6.618	7.31	8.717	8.946

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	32	0.004	0.059	0.398	0.001	0.011	0.107	0.001	0.002	0.049	0.241
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	1	147.	147.	147.	0.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	1	22.	22.	22.	0.	0.	0.	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	1	125.	125.	125.	125.	0.	0.	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	11 ##	2.5	34.909	256.	2.5	6045.341	77.752	2.5	2.5	10.	222.8
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	11 ##	2.5	5.727	24.	2.	48.668	6.976	2.1	2.5	5.	22.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	11 ##	2.5	30.545	232.	2.5	4943.323	70.309	2.5	2.5	5.	200.8
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	20 ##	0.05	0.049	0.1	0.025	0.001	0.029	0.025	0.025	0.05	0.1
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	12 ##	0.05	0.063	0.2	0.05	0.002	0.043	0.05	0.05	0.05	0.155
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	20 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	12 ##	0.005	0.009	0.03	0.005	0.	0.008	0.005	0.005	0.009	0.027
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	20	0.06	0.147	0.46	0.025	0.022	0.15	0.025	0.025	0.3	0.386
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	12	0.21	0.19	0.46	0.025	0.023	0.153	0.025	0.025	0.29	0.43
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	32	0.3	0.434	1.1	0.1	0.084	0.289	0.13	0.3	0.5	1.04
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	32	0.145	0.156	0.32	0.04	0.006	0.077	0.05	0.1	0.2	0.285
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	20	0.095	0.116	0.31	0.03	0.006	0.078	0.03	0.06	0.19	0.228
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	32	0.1	0.113	0.28	0.005	0.006	0.079	0.027	0.035	0.185	0.227
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	32	6.	5.938	9.	3.	1.867	1.366	4.3	5.	6.	8.7
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	1	88.	88.	88.	88.	0.	0.	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	20	6300.	5830.	9500.	1900.	6373789.474	2524.637	2320.	3600.	8025.	9180.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	29 ##	50.	221.138	4300.	15.	622136.48	788.756	15.	50.	75.	300.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	29 ##	1.699	1.806	3.633	1.176	0.222	0.471	1.176	1.699	1.849	2.477
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	63.907								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	27	16.6	18.096	31.	2.5	88.715	9.419	6.4	10.	28.	29.8
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	25	147.	151.72	300.	60.	3914.377	62.565	76.	97.	181.5	250.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	14	0.	0.007	0.1	0.	0.001	0.027	0.	0.	0.	0.05
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	16	9.5	9.75	12.6	7.6	2.963	1.721	7.74	8.225	11.45	12.18
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	25	9.9	9.78	13.4	4.4	3.941	1.985	7.8	8.2	10.95	12.46
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	11	1.	1.364	4.	0.5	1.005	1.002	0.5	1.	2.	3.6
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	11	12.	12.455	20.	4.	25.273	5.027	4.6	8.	17.	19.6
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	28	8.3	8.188	8.95	6.13	0.496	0.704	6.963	8.085	8.718	8.854
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	28	8.3	7.329	8.95	6.13	1.261	1.123	6.963	8.085	8.718	8.854
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	28	0.005	0.047	0.741	0.001	0.022	0.147	0.001	0.002	0.008	0.117
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	11 ##	2.5	13.545	62.	2.5	348.523	18.669	2.5	2.5	21.	55.6
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	11 ##	2.5	3.409	9.	2.	4.191	2.047	2.1	2.5	4.	8.2
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	11 ##	2.5	11.636	53.	2.5	252.305	15.884	2.5	2.5	16.	47.6
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	18 ##	0.025	0.029	0.07	0.025	0.	0.012	0.025	0.025	0.025	0.052
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	17 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	17	0.05	0.146	0.44	0.025	0.021	0.144	0.025	0.025	0.28	0.376
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.23	0.231	0.47	0.025	0.029	0.17	0.025	0.025	0.37	0.466
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	28	0.3	0.361	1.8	0.1	0.097	0.311	0.2	0.2	0.4	0.52
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	28	0.1	0.15	0.45	0.05	0.01	0.099	0.05	0.07	0.208	0.3
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	17	0.05	0.091	0.25	0.03	0.006	0.076	0.03	0.04	0.125	0.242
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	28	0.06	0.088	0.32	0.005	0.007	0.085	0.01	0.02	0.118	0.223
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	20	5.	5.25	12.	3.	4.092	2.023	3.1	4.	5.	8.7
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	17	6700.	6647.059	9600.	3900.	2841397.059	1685.644	4140.	5250.	8000.	8960.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	200.	250.	800.	50.	54000.	232.379	50.	50.	400.	740.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	2.301	2.228	2.903	1.699	0.173	0.416	1.699	1.699	2.602	2.862
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	168.943								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	22	20.45	18.218	32.	2.	91.823	9.582	3.87	9.65	26.425	30.35
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	18	144.5	163.444	300.	45.	6666.732	81.65	54.	90.	244.	272.1
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	1	213.	213.	213.	213.	0.	0.	**	**	**	**
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	10	9.75	10.32	16.5	7.6	8.111	2.848	7.61	7.85	12.075	16.08
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	12	9.6	10.458	14.2	7.8	4.799	2.191	7.92	8.7	12.575	13.99
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	8	1.	1.125	2.	4.	0.339	0.582	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	8	14.5	13.125	21.	4.	26.125	5.111	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	22	8.385	8.279	9.18	6.79	0.392	0.626	7.117	8.065	8.675	9.066
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	22	8.384	7.741	9.18	6.79	0.695	0.833	7.117	8.065	8.675	9.066
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	22	0.004	0.018	0.162	0.001	0.001	0.038	0.001	0.002	0.009	0.078
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	1	61.	61.	61.	61.	0.	0.	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	18	4.	10.806	70.	1.	273.092	16.526	1.	2.375	11.25	29.5
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	18	3.	3.5	10.	0.	9.853	3.139	0.	0.5	4.5	10.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	18	2.75	7.611	60.	0.5	196.899	14.032	0.5	1.	8.25	21.3
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	9	0.05	0.051	0.08	0.02	0.	0.022	0.02	0.03	0.07	0.08
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.05	0.047	0.08	0.01	0.001	0.022	0.01	0.03	0.065	0.08
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	10##	0.005	0.009	0.02	0.005	0.	0.006	0.005	0.005	0.013	0.02
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.01	0.018	0.05	0.005	0.	0.015	0.005	0.008	0.03	0.05
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	10##	0.02	0.056	0.23	0.02	0.005	0.071	0.02	0.02	0.078	0.22
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.18	0.176	0.37	0.02	0.022	0.147	0.02	0.03	0.32	0.37
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	19	0.4	0.471	1.4	0.2	0.09	0.3	0.2	0.3	0.6	1.
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	19	0.26	0.268	0.5	0.1	0.009	0.096	0.13	0.2	0.3	0.4
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	10	0.225	0.251	0.48	0.11	0.01	0.101	0.116	0.193	0.303	0.463
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	19	0.22	0.221	0.46	0.09	0.01	0.099	0.09	0.14	0.28	0.35
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	16	4.1	4.119	5.8	2.5	0.72	0.849	2.64	3.675	4.65	5.38
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	1	80.	80.	80.	80.	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	3	22.	23.333	29.	19.	26.333	5.132	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	2	17.	17.	19.	15.	8.	2.828	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	10	5500.	6160.	10500.	4400.	4162666.667	2040.261	4400.	4475.	7750.	10270.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	100.	336.364	1500.	50.	225545.455	474.916	50.	50.	600.	1380.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	2.	2.182	3.176	1.699	0.299	0.547	1.699	1.699	2.778	3.132
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	152.163							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	16	14.65	14.744	28.	1.	64.024	8.001	4.57	8.575	20.85	27.58
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	11	9.8	32.082	138.	2.6	2284.518	47.797	2.7	3.4	34.	133.2
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	14	128.	132.143	224.	85.	1311.67	36.217	92.5	103.75	152.	196.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	5	135.	134.4	176.	75.	1572.3	39.652	**	**	**	**
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED MG/L	07/11/84-12/15/98	5	13.5	12.7	14.4	10.7	2.575	1.605	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	11	9.8	10.791	16.3	7.8	7.413	2.723	7.84	8.7	12.8	15.84
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	11	2.	1.955	4.	0.5	1.123	1.06	0.6	1.	3.	3.8
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	12	11.	12.25	19.	8.	18.386	4.288	8.	8.	16.5	19.
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	16	8.1	7.971	9.03	6.76	0.289	0.537	7.005	7.633	8.248	8.575
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	16	8.097	7.607	9.03	6.76	0.43	0.656	7.005	7.632	8.247	8.575
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	16	0.008	0.025	0.174	0.001	0.002	0.044	0.003	0.006	0.023	0.106
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	11	7.5	7.482	8.1	6.9	0.13	0.36	6.94	7.1	7.7	8.04
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	11	7.5	7.351	8.1	6.9	0.148	0.385	6.94	7.1	7.7	8.04

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### Annual Analysis for 1989 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	11	0.032	0.045	0.126	0.008	0.001	0.036	0.01	0.02	0.079	0.117
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	11	45.	44.727	54.	23.	90.018	9.488	25.6	41.	53.	54.
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	8	108.	122.75	182.	82.	1285.071	35.848	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	8	29.5	30.625	47.	16.	90.839	9.531	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	8	83.	92.125	158.	56.	1146.125	33.854	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	16	4.5	22.031	138.	0.5	1690.016	41.11	0.85	2.	24.5	117.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	15	1.	3.3	20.	0.5	25.921	5.091	0.5	0.5	5.	12.2
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	16	2.	18.531	118.	0.5	1304.749	36.121	0.5	1.	19.5	104.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	5 ##	0.02	0.038	0.08	0.02	0.001	0.027	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.02	0.027	0.05	0.02	0.	0.013	0.02	0.02	0.04	0.05
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	5	0.01	0.008	0.01	0.005	0.	0.003	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.005	0.009	0.03	0.005	0.	0.007	0.005	0.005	0.01	0.026
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	5	0.26	0.254	0.35	0.18	0.004	0.065	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.27	0.287	0.45	0.14	0.009	0.093	0.152	0.21	0.36	0.442
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	16	0.35	0.431	1.1	0.2	0.07	0.265	0.2	0.2	0.65	0.89
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	16	0.1	0.123	0.3	0.05	0.004	0.063	0.064	0.1	0.148	0.23
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	5	0.08	0.08	0.14	0.04	0.001	0.037	**	**	**	**
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	16	0.08	0.081	0.15	0.04	0.001	0.027	0.047	0.063	0.098	0.122
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	16	3.4	3.719	6.9	2.7	1.247	1.117	2.7	2.85	4.1	5.64
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	10	53.	52.	64.	30.	102.222	10.111	31.6	46.	60.5	63.8
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	9	7.	8.778	25.	3.	45.944	6.778	3.	4.5	10.5	25.
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	9	11.	11.222	17.	7.	7.444	2.728	7.	10.	12.5	17.
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	8	8.5	8.488	14.8	2.2	12.273	3.503	**	**	**	**
01140	SILICON, DISSOLVED (UG/L AS SI)	07/31/84-04/13/89	5	7100.	6820.	8000.	4900.	1327000.	1151.955	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	100.	1204.545	8000.	50.	5967227.273	2442.791	50.	50.	1600.	7000.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	2.	2.307	3.903	1.699	0.676	0.822	1.699	1.699	3.204	3.818
				GEOMETRIC MEAN =		202.905							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1990 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	30	20.25	19.	28.7	2.6	56.87	7.541	8.7	12.825	25.875	27.9
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	15	4.4	5.52	20.	1.9	18.596	4.312	2.5	3.3	5.8	12.74
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	20	119.	147.6	268.	65.	3984.358	63.122	80.	101.	192.75	257.7
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	32	164.5	176.781	351.	95.	3127.338	55.923	116.3	137.	217.75	260.4
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	19	9.5	9.674	12.7	7.3	2.612	1.616	7.5	8.4	10.8	12.2
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	10	8.9	9.45	12.9	7.3	4.207	2.051	7.32	7.725	11.275	12.88
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	14	1.5	1.607	4.	0.5	0.776	0.881	0.75	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	24	9.5	11.25	31.	4.	51.935	7.207	4.5	6.25	13.	26.5
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	30	7.915	7.879	8.76	6.08	0.337	0.581	7.024	7.573	8.388	8.577
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	30	7.914	7.323	8.76	6.08	0.657	0.811	7.024	7.573	8.388	8.577
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	30	0.012	0.048	0.832	0.002	0.023	0.15	0.003	0.004	0.027	0.097
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	15	7.3	7.4	8.2	6.8	0.177	0.421	6.86	7.	7.7	8.08
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	15	7.3	7.239	8.2	6.8	0.205	0.453	6.86	7.	7.7	8.08
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	15	0.05	0.058	0.158	0.006	0.002	0.046	0.009	0.02	0.1	0.139
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	15	48.	46.8	76.	3.	398.743	19.969	10.8	40.	60.	74.8
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	14	107.5	115.	166.	74.	808.	28.425	82.	94.	136.	164.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	14	22.5	22.357	54.	6.	146.247	12.093	7.5	10.75	28.25	41.5
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	14	83.5	92.643	138.	47.	671.016	25.904	60.5	75.	111.75	136.5
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	33	9.	12.152	60.	0.5	219.304	14.809	1.4	3.5	11.5	36.2
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	32	3.	3.469	13.	0.5	7.983	2.825	1.	1.25	5.	7.7
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	33	5.	8.773	55.	0.5	167.189	12.93	0.5	1.	8.	30.2
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	19 ##	0.02	0.032	0.19	0.02	0.002	0.04	0.02	0.02	0.02	0.07
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	12 ##	0.02	0.027	0.1	0.02	0.001	0.023	0.02	0.02	0.02	0.076

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1990 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	19 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.005
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.005	0.006	0.02	0.005	0.	0.005	0.005	0.005	0.005	0.017
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	19	0.27	0.227	0.47	0.02	0.026	0.161	0.02	0.02	0.35	0.41
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	12	0.195	0.214	0.48	0.02	0.035	0.187	0.02	0.02	0.4	0.468
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	31	0.3	0.361	1.6	0.1	0.079	0.281	0.12	0.2	0.4	0.58
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	31	0.09	0.105	0.47	0.04	0.008	0.091	0.05	0.05	0.1	0.174
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	19	0.04	0.045	0.08	0.01	0.	0.021	0.02	0.03	0.07	0.07
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	31	0.04	0.042	0.08	0.01	0.	0.019	0.02	0.02	0.06	0.06
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	33	3.1	3.215	5.9	1.2	1.245	1.116	1.94	2.45	3.85	5.06
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	10/20/86-12/15/98	14	69.	330.286	3600.	56.	886785.143	941.693	57.	58.	96.	1893.
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	14	8.	10.071	21.	4.	32.995	5.744	4.5	6.	13.75	20.5
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	02/18/68-12/15/98	14	12.5	16.357	36.	10.	60.709	7.792	10.	10.75	22.5	31.
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	33	7.4	7.142	10.9	2.5	4.126	2.031	4.24	5.65	8.35	9.76
31616p	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	12 ##	50.	129.167	300.	50.	12481.061	111.719	50.	50.	275.	300.
31616p	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-02/17/94	12 ##	1.699	1.969	2.477	1.699	0.127	0.356	1.699	1.699	2.433	2.477
31616p	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				GEOMETRIC MEAN =	93.06							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1991 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	26	19.7	17.931	27.7	6.5	62.309	7.894	7.69	9.175	26.15	27.4
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	8	19.15	55.213	180.	0.6	5682.57	75.383	**	**	**	**
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	19	143.	167.053	295.	31.	4350.275	65.957	113.	125.	201.	281.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	16	130.5	144.688	322.	2.	5122.896	71.574	67.8	109.25	172.25	276.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	19	9.5	9.695	12.4	7.8	2.424	1.557	7.8	8.2	11.2	11.9
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	7	11.7	10.843	12.3	8.5	2.1	1.449	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	6	2.	2.333	5.	1.	2.267	1.506	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	8	11.5	11.5	16.	6.	13.714	3.703	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	26	7.47	7.627	8.59	7.05	0.209	0.457	7.134	7.23	8.04	8.337
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	26	7.464	7.448	8.59	7.05	0.242	0.492	7.134	7.23	8.04	8.337
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	26	0.034	0.036	0.089	0.003	0.001	0.027	0.005	0.009	0.059	0.074
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	7	7.5	7.486	8.1	6.9	0.248	0.498	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	7	7.5	7.272	8.1	6.9	0.302	0.549	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	7	0.032	0.054	0.126	0.008	0.003	0.052	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/18/68-12/15/98	7	47.	53.	81.	33.	361.	19.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	7	150.	150.857	252.	97.	3183.81	56.425	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	7	31.	33.143	58.	19.	175.476	13.247	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	7	120.	117.714	212.	68.	2364.905	48.63	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	27	9.	37.537	325.	1.5	5463.229	73.914	1.5	6.	36.	174.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	27	2.	5.315	36.	1.	73.426	8.569	1.	1.	5.	22.8
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	27	7.	32.389	289.	1.5	4266.795	65.321	1.5	4.	30.	151.6
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	20 ##	0.02	0.032	0.06	0.02	0.	0.016	0.02	0.02	0.04	0.06
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	9 ##	0.02	0.031	0.06	0.02	0.	0.015	0.02	0.02	0.04	0.06
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	20 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.005
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9 ##	0.005	0.015	0.07	0.005	0.	0.021	0.005	0.005	0.015	0.07
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	20	0.215	0.189	0.37	0.02	0.017	0.129	0.02	0.033	0.288	0.36
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	9	0.21	0.187	0.37	0.005	0.023	0.151	0.005	0.02	0.335	0.37
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	29	0.3	0.476	1.5	0.2	0.086	0.294	0.2	0.3	0.6	0.9
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	29	0.08	0.106	0.48	0.03	0.01	0.1	0.04	0.05	0.1	0.3
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	20	0.035	0.039	0.09	0.01	0.	0.017	0.03	0.03	0.048	0.06
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	29	0.03	0.037	0.07	0.01	0.	0.017	0.02	0.02	0.05	0.06
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	28	3.65	3.743	6.9	1.2	1.617	1.271	2.58	2.925	4.175	6.11
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	10/20/86-12/15/98	9	78.	74.111	116.	37.	625.611	25.012	37.	53.	94.	116.
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	7	5.	9.429	23.	2.	68.286	8.264	**	**	**	**

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### Annual Analysis for 1991 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	7	14.	17.	34.	8.	90.333	9.504	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	27	6.7	6.9	10.2	2.4	3.789	1.947	3.96	5.8	8.5	9.86
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	9 ##	50.	66.667	100.	50.	625.	25.	50.	50.	100.	100.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	9 ##	1.699	1.799	2.	1.699	0.023	0.151	1.699	1.699	2.	2.
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	62.996								

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### Annual Analysis for 1992 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	27	13.9	15.093	28.3	3.5	61.468	7.84	5.04	7.8	22.5	26.5
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	13	6.8	25.262	130.	2.1	1281.833	35.803	2.54	3.7	42.5	95.6
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	13	176.	196.077	290.	105.	3833.41	61.915	108.6	150.5	256.	284.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	12	157.	158.083	255.	24.	3925.538	62.654	50.4	116.75	213.75	248.1
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	22	9.9	10.195	13.4	7.5	4.026	2.007	7.5	8.4	11.975	13.16
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	5	10.2	10.36	12.2	8.9	1.673	1.293	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	13	1.	1.769	7.	1.	2.692	1.641	1.	1.	2.	5.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/15/98	14	15.	18.	75.	2.	296.923	17.231	4.	11.	17.5	48.5
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	27	7.25	7.251	7.82	6.25	0.143	0.378	6.872	7.	7.54	7.736
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	27	7.25	7.07	7.82	6.25	0.177	0.42	6.872	7.	7.54	7.736
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	27	0.056	0.085	0.562	0.015	0.012	0.108	0.018	0.029	0.1	0.142
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	13	7.6	7.585	8.3	7.	0.143	0.378	7.08	7.3	7.8	8.26
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	13	7.6	7.455	8.3	7.	0.161	0.402	7.08	7.3	7.8	8.26
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	13	0.025	0.035	0.1	0.005	0.001	0.026	0.006	0.016	0.05	0.085
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	13	50.	48.	69.	19.	222.	14.9	23.4	35.5	61.5	67.4
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	13	127.	181.769	861.	85.	42129.859	205.256	92.6	112.	151.	583.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	12	25.5	31.583	107.	15.	607.72	24.652	15.	19.	30.75	86.
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	13	93.	150.	754.	70.	33499.5	183.029	73.2	82.5	126.5	512.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	27	10.	38.667	718.	2.	18547.923	136.191	2.8	5.	22.	37.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	27	2.	5.296	78.	1.	213.986	14.628	1.	1.	4.	6.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	27	7.	33.37	640.	1.	14781.781	121.58	1.8	4.	18.	31.4
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	14 ##	0.02	0.026	0.05	0.02	0.	0.011	0.02	0.02	0.04	0.045
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	13 ##	0.02	0.043	0.25	0.02	0.004	0.063	0.02	0.02	0.04	0.17
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	14 ##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.02
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	13 ##	0.005	0.017	0.11	0.005	0.001	0.029	0.005	0.005	0.015	0.078
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	14	0.165	0.183	0.41	0.02	0.022	0.15	0.02	0.035	0.328	0.405
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	13	0.2	0.262	0.51	0.02	0.026	0.162	0.036	0.135	0.42	0.482
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	27	0.4	0.496	3.5	0.2	0.387	0.622	0.2	0.3	0.4	0.68
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	27	0.07	0.129	1.2	0.04	0.048	0.22	0.04	0.05	0.12	0.2
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	14	0.03	0.036	0.09	0.01	0.	0.019	0.015	0.028	0.043	0.07
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	27	0.03	0.036	0.19	0.01	0.001	0.034	0.01	0.02	0.04	0.06
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	28	5.35	6.311	25.5	1.1	32.272	5.681	1.68	3.4	6.725	10.3
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	14	63.	60.357	89.	29.	279.786	16.727	34.5	44.75	70.5	85.5
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	13	7.	8.615	16.	4.	17.09	4.134	4.	5.	13.	15.2
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	13	13.	16.769	31.	9.	43.359	6.585	9.4	12.	22.5	27.8
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	27	6.7	7.185	15.4	2.3	8.088	2.844	4.	5.1	9.	11.04
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	12	100.	506.583	4000.	50.	1297883.72	1139.247	50.	50.	250.	3130.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	12	2.	2.151	3.602	1.699	0.362	0.601	1.699	1.699	2.358	3.434
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	141.636								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1993 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	25	22.3	18.964	31.3	2.7	95.767	9.786	4.5	8.4	28.5	30.28
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	15	3.8	9.507	39.	1.	146.978	12.123	1.24	2.3	11.	36.6
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	11	4.6	17.118	108.	0.6	990.714	31.476	0.88	2.3	15.1	92.8
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	19	161.	198.421	360.	81.	6320.035	79.499	128.	134.	261.	331.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	6	128.5	157.167	298.	105.	5514.967	74.263	**	**	**	**
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	20	9.35	9.825	13.1	7.3	3.67	1.916	7.53	8.2	11.375	13.03
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	5	8.5	9.68	14.2	7.3	7.592	2.755	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	11	2.	1.545	2.	1.	0.273	0.522	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	8	14.	12.25	16.	1.	22.786	4.773	**	**	**	**
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	24	7.6	7.711	9.29	6.92	0.372	0.61	7.	7.25	8.153	8.61
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	24	7.597	7.427	9.29	6.92	0.456	0.675	7.	7.25	8.153	8.61
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	24	0.025	0.037	0.12	0.001	0.001	0.036	0.002	0.007	0.057	0.1
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	10	7.55	7.62	8.5	7.2	0.18	0.424	7.2	7.275	7.925	8.45
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	10	7.525	7.479	8.5	7.2	0.202	0.449	7.2	7.275	7.925	8.45
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	10	0.03	0.033	0.063	0.003	0.001	0.023	0.004	0.012	0.053	0.063
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	10	47.	52.	83.	30.	328.	18.111	30.4	38.5	68.75	82.4
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	10	116.	118.3	188.	76.	1372.233	37.044	76.6	84.25	135.25	186.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	10	20.5	22.6	40.	6.	137.822	11.74	6.3	12.75	35.25	39.6
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	10	82.	83.5	153.	14.	1304.722	36.121	18.3	66.75	103.75	148.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	26	8.5	13.288	47.	1.5	171.443	13.094	1.5	4.5	18.	37.6
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	26	2.	2.885	8.	1.	4.526	2.127	1.	1.5	4.25	6.6
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	26	6.5	10.75	39.	1.5	115.945	10.768	1.5	3.	14.5	31.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	16 ##	0.02	0.026	0.05	0.02	0.	0.01	0.02	0.02	0.035	0.043
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.02	0.032	0.08	0.02	0.	0.019	0.02	0.02	0.04	0.074
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	16 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.007
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11 ##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.018
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	16	0.12	0.176	0.47	0.02	0.025	0.158	0.02	0.03	0.313	0.463
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	11	0.19	0.24	0.48	0.02	0.031	0.176	0.02	0.06	0.42	0.476
00625p	NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	27	0.4	0.393	0.7	0.2	0.012	0.111	0.28	0.3	0.5	0.5
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	27	0.09	0.081	0.15	0.03	0.001	0.035	0.038	0.05	0.1	0.122
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	16	0.045	0.053	0.11	0.01	0.001	0.032	0.017	0.023	0.08	0.103
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	27	0.03	0.041	0.08	0.01	0.001	0.025	0.01	0.02	0.06	0.08
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	24	4.4	5.592	18.1	2.3	13.216	3.635	2.6	3.625	6.2	11.55
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	8	54.	60.625	90.	41.	303.696	17.427	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	10	6.5	12.	34.	3.	110.222	10.499	3.1	4.	21.5	32.9
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	10	12.5	22.4	65.	10.	328.933	18.137	10.	10.75	35.5	62.2
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	18	6.8	6.839	9.1	3.8	2.215	1.488	4.25	6.1	8.025	8.56
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	100.	136.364	600.	50.	25545.455	159.829	50.	50.	100.	520.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	11	2.	1.989	2.778	1.699	0.106	0.325	1.699	1.699	2.	2.683
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				97.419								

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### Annual Analysis for 1994 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	25	22.3	19.632	32.8	2.1	94.569	9.725	3.54	10.5	27.8	30.64
00070	TURBIDITY, (JACKSON CANDLE UNITS)	02/21/89-02/01/94	2	21.55	21.55	32.	11.1	218.405	14.779	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	21	2.8	3.971	14.8	1.6	10.518	3.243	1.72	2.	4.9	8.44
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	19	198.	209.579	329.	114.	3886.924	62.345	118.	167.	269.	294.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	24	187.	188.333	277.	94.	2799.536	52.911	116.	143.	237.25	264.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	23	8.9	9.73	13.8	6.9	3.346	1.829	7.98	8.3	11.3	12.64
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	2	13.8	13.8	13.9	13.7	0.02	0.141	**	**	**	**
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	25	1.6	1.864	5.7	0.5	1.562	1.25	0.5	1.05	2.1	3.86
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	6	13.	11.833	15.	4.	17.367	4.167	**	**	**	**

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### Annual Analysis for 1994 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	25	8.18	8.207	9.15	7.22	0.289	0.537	7.266	7.94	8.695	8.85
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	25	8.18	7.884	9.15	7.22	0.398	0.631	7.266	7.94	8.695	8.85
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	25	0.007	0.013	0.06	0.001	0.	0.018	0.001	0.002	0.012	0.054
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	21	7.4	7.452	8.4	6.6	0.247	0.497	6.84	7.1	7.7	8.36
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	21	7.4	7.231	8.4	6.6	0.298	0.546	6.84	7.1	7.7	8.36
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	21	0.04	0.059	0.251	0.004	0.003	0.059	0.004	0.02	0.079	0.147
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	21	54.	52.857	73.	28.	162.629	12.753	34.4	42.	63.	69.8
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	10	137.	144.4	179.	118.	465.6	21.578	118.6	124.75	165.	178.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	10	33.5	36.1	55.	16.	213.211	14.602	16.6	22.75	52.5	54.9
00510	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	10	108.5	108.3	142.	64.	685.789	26.188	65.7	84.75	131.25	141.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	24	5.5	10.167	72.	1.5	205.949	14.351	2.25	4.	12.	21.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	24##	1.5	2.333	10.	1.	4.688	2.165	1.	1.5	2.75	5.5
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	24	4.5	8.	62.	1.5	155.326	12.463	1.5	1.875	8.75	18.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.021	0.02	0.031	0.007	0.	0.008	0.007	0.013	0.027	0.03
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	10##	0.02	0.03	0.06	0.02	0.	0.016	0.02	0.02	0.05	0.059
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12##	0.001	0.002	0.003	0.001	0.	0.001	0.001	0.001	0.002	0.003
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	10	0.01	0.017	0.03	0.005	0.	0.012	0.005	0.005	0.03	0.03
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.05	0.136	0.44	0.005	0.026	0.162	0.005	0.013	0.315	0.416
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	10	0.05	0.142	0.37	0.02	0.022	0.149	0.02	0.02	0.308	0.366
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	10	0.3	0.32	0.5	0.2	0.006	0.079	0.21	0.3	0.325	0.49
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	10	0.065	0.082	0.14	0.05	0.001	0.031	0.051	0.06	0.105	0.138
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	5	0.07	0.072	0.11	0.05	0.001	0.025	**	**	**	**
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	14	0.04	0.046	0.104	0.007	0.001	0.027	0.009	0.029	0.063	0.092
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	16	3.7	4.344	14.7	2.4	8.085	2.843	2.54	3.2	4.35	7.91
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	12	57.5	58.833	81.	38.	185.424	13.617	39.2	50.	70.5	78.9
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	14	15.	14.857	25.	4.	37.363	6.112	5.	10.	19.75	23.5
00945	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	14	26.	24.5	37.	8.	90.115	9.493	10.	16.5	34.25	36.
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	12	7.	6.867	8.7	4.3	1.61	1.269	4.66	6.	7.7	8.58
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	18	74.5	1723.333	16000.	9.	15937303.294	3992.155	18.9	33.5	1425.	7900.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	18	1.87	2.228	4.204	0.954	0.946	0.973	1.266	1.51	3.126	3.881
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	168.87								
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	3	100.	130.	240.	50.	9700.	98.489	**	**	**	**
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	3	2.	2.026	2.38	1.699	0.117	0.341	**	**	**	**
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	106.266								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	8	0.05	0.052	0.09	0.04	0.	0.017	**	**	**	**

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### Annual Analysis for 1995 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	22	22.65	20.409	32.4	3.8	71.598	8.462	6.45	14.85	27.025	30.61
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	15	7.7	7.767	14.9	2.6	12.595	3.549	3.56	5.2	10.6	13.7
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	21	179.	196.095	304.	60.	5355.79	73.183	112.4	145.5	280.5	300.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	15	154.	184.267	342.	122.	3923.781	62.64	130.4	140.	231.	303.6
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	22	9.3	9.864	14.3	7.8	3.032	1.741	8.3	8.65	10.425	12.87
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	15	1.8	1.647	2.9	0.5	0.657	0.811	0.5	1.	2.2	2.9
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	12	11.5	11.958	27.	2.5	45.748	6.764	3.25	7.	16.	24.3
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	22	8.25	8.066	8.7	6.82	0.242	0.492	7.433	7.663	8.493	8.587
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	22	8.246	7.745	8.7	6.82	0.351	0.592	7.433	7.663	8.493	8.587
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	22	0.006	0.018	0.151	0.002	0.001	0.032	0.003	0.003	0.022	0.037
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	14	7.45	7.557	8.5	6.	0.47	0.686	6.4	7.15	8.15	8.4
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	14	7.447	6.965	8.5	6.	0.848	0.921	6.4	7.15	8.15	8.4
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	14	0.036	0.108	1.	0.003	0.068	0.26	0.004	0.007	0.072	0.579
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	15	44.	47.933	81.	9.	309.638	17.597	23.4	41.	57.	78.6
00500	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	3	101.	108.	141.	82.	907.	30.116	**	**	**	**

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### Annual Analysis for 1995 - Station RICH0116

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00505 RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	3	32.	28.667	36.	18.	89.333	9.452	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	3	69.	79.333	105.	64.	500.333	22.368	**	**	**	**
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	15	7.	8.333	20.	3.	24.81	4.981	3.	4.	13.	17.
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	15 ##	1.5	1.767	4.	1.5	0.531	0.729	1.5	1.5	1.5	3.4
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	15	5.	6.633	16.	1.5	17.731	4.211	2.4	3.	10.	14.2
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.024	0.021	0.041	0.008	0.	0.01	0.008	0.011	0.028	0.038
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	3 ##	0.02	0.03	0.05	0.02	0.	0.017	**	**	**	**
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.003	0.003	0.013	0.001	0.	0.003	0.001	0.001	0.004	0.011
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	3 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.185	0.19	0.4	0.008	0.019	0.136	0.012	0.053	0.33	0.388
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	3	0.32	0.267	0.32	0.16	0.009	0.092	**	**	**	**
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	3	0.3	0.333	0.4	0.3	0.003	0.058	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	4	0.1	0.095	0.13	0.05	0.001	0.034	**	**	**	**
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	11	0.08	0.085	0.14	0.04	0.001	0.03	0.042	0.06	0.11	0.136
00671p PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	12	0.06	0.068	0.128	0.028	0.001	0.033	0.032	0.042	0.1	0.125
00680p CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	12	5.2	4.817	6.1	2.9	1.089	1.043	3.08	3.8	5.575	6.04
00900 HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	10/20/86-12/15/98	12	55.5	60.917	103.	30.	415.538	20.385	34.5	49.	78.5	97.9
00940 CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	15	9.	11.267	24.	6.	33.067	5.75	6.	7.	16.	22.2
00945 SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	02/18/68-12/15/98	15	15.	17.467	39.	11.	58.124	7.624	11.6	12.	23.	31.8
00955 SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	12	8.15	7.65	10.2	3.7	4.728	2.174	3.91	5.675	9.4	10.2
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	22	330.	848.864	5400.	9.	1615185.171	1270.899	9.	81.	905.	2400.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	22	2.519	2.405	3.732	0.954	0.689	0.83	0.954	1.89	2.954	3.38
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	254.113								
49567 PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	02/22/95-12/15/98	11	0.019	0.062	0.495	0.012	0.021	0.144	0.012	0.013	0.028	0.402
49569 CARBON PARICULATE, FIELD FILTERED,SUSP., WTR MG/L	02/22/95-12/15/98	9	0.49	0.527	0.94	0.072	0.058	0.24	0.072	0.415	0.681	0.94
49570 NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	10	0.051	0.061	0.107	0.033	0.001	0.024	0.034	0.044	0.079	0.105
49571 NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	02/22/95-12/15/98	11	0.428	0.51	0.89	0.309	0.041	0.202	0.31	0.336	0.714	0.87
49572 PHOSPHOROUS TOTAL, FIELD FILTURED, DISSOLVED,WTR MG/L	02/22/95-12/15/98	11	0.066	0.078	0.13	0.047	0.001	0.029	0.047	0.052	0.106	0.127
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	3	0.08	0.083	0.1	0.07	0.	0.015	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0116

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	24	21.15	19.213	28.8	4.5	63.607	7.975	5.1	15.025	26.7	28.2
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	12	7.75	28.892	237.	4.5	4344.41	65.912	4.65	5.025	17.025	174.3
00094p SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	24	159.	166.833	235.	114.	1024.667	32.01	124.	145.	184.5	215.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	12	140.	146.583	201.	110.	922.265	30.369	110.6	123.25	169.25	200.1
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	24	9.45	9.854	14.7	6.7	3.89	1.972	7.6	8.325	11.125	13.
00310p BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	12 ##	0.75	1.167	2.	0.5	0.561	0.749	0.5	0.5	2.	2.
00340 COD,.25N K2CR2O7 MG/L	08/15/79-12/15/98	12	12.	11.833	19.	5.	16.697	4.086	5.6	8.25	15.	18.1
00400p PH (STANDARD UNITS)	02/18/68-12/15/98	24	7.77	7.852	8.63	6.52	0.296	0.544	7.075	7.645	8.27	8.615
00400p CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	24	7.77	7.482	8.63	6.52	0.439	0.662	7.075	7.645	8.27	8.615
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	24	0.017	0.033	0.302	0.002	0.004	0.062	0.002	0.005	0.023	0.084
00403 PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	12	7.55	7.525	8.	7.2	0.075	0.273	7.2	7.225	7.7	7.97
00403 CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	12	7.547	7.452	8.	7.2	0.081	0.284	7.2	7.225	7.7	7.97
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	12	0.028	0.035	0.063	0.01	0.	0.02	0.011	0.02	0.06	0.063
00410 ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/18/68-12/15/98	12	43.	44.667	54.	34.	50.242	7.088	34.3	40.25	52.5	54.
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	12	11.	31.333	247.	3.	4670.424	68.341	3.3	4.75	22.	180.7
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	12 ##	2.25	4.333	22.	1.5	34.47	5.871	1.5	1.5	3.75	17.8
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	12	7.5	27.292	225.	1.5	3919.112	62.603	2.25	4.25	19.	164.1
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.018	0.016	0.035	0.002	0.	0.011	0.002	0.005	0.025	0.033
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.002	0.003	0.01	0.	0.003	0.001	0.001	0.001	0.004	0.009
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.285	0.241	0.45	0.006	0.024	0.154	0.007	0.078	0.35	0.441
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	1	0.04	0.04	0.04	0.04	0.04	0.	0.	**	**	**

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### Annual Analysis for 1996 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	12	0.031	0.03	0.047	0.004	0.	0.012	0.009	0.023	0.038	0.047
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	8	4.05	4.25	7.	2.2	2.557	1.599	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	10/20/86-12/15/98	12	58.5	54.5	66.	28.	118.455	10.884	32.8	50.	62.25	66.
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	12	6.	6.625	13.	2.5	12.733	3.568	2.5	3.125	9.	12.7
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	02/18/68-12/15/98	12	11.	12.75	21.	8.	17.659	4.202	8.3	10.	15.5	20.7
00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	08/29/84-12/15/98	13	7.7	6.954	10.3	0.5	7.876	2.806	1.1	6.1	8.9	9.78
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	01/26/94-12/15/98	24	155.	2483.	16000.	40.	28541956.087	5342.467	45.	78.	700.	16000.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	01/26/94-12/15/98	24	2.188	2.511	4.204	1.602	0.698	0.836	1.653	1.892	2.845	4.204
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)			GEOMETRIC MEAN =	324.455								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	12	0.024	0.04	0.228	0.007	0.004	0.06	0.007	0.013	0.036	0.172
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	02/22/95-12/15/98	12	0.774	1.097	4.445	0.105	1.396	1.181	0.107	0.365	1.268	3.71
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	11	0.097	0.15	0.469	0.032	0.015	0.121	0.039	0.074	0.185	0.42
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED, WTR MG/L	02/22/95-12/15/98	12	0.565	0.513	0.739	0.228	0.025	0.157	0.248	0.352	0.627	0.709
49572	PHOSPHOROUS TOTAL, FIELD FILTURED, DISSLVD, WTR MG/L	02/22/95-12/15/98	12	0.041	0.039	0.053	0.015	0.	0.011	0.018	0.033	0.048	0.052

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### Annual Analysis for 1997 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	21	21.9	19.19	30.8	0.8	80.125	8.951	5.68	12.1	27.8	29.76
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	12	5.65	6.6	18.3	1.4	22.307	4.723	1.58	2.65	9.35	15.9
00094p	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	21	195.	209.571	362.	84.	3932.057	62.706	127.	177.5	261.	275.8
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	12	176.	193.917	258.	129.	2090.811	45.725	132.9	161.5	242.5	257.7
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	9	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	21	9.9	10.19	16.	8.2	3.555	1.885	8.26	8.7	10.95	12.7
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	12##	1.	1.125	4.	0.5	1.006	1.003	0.5	0.5	1.	3.4
00340	COD, .25N K2CR2O7 MG/L	08/15/79-12/15/98	12	7.5	8.25	12.	6.	4.023	2.006	6.	7.	10.	11.7
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	21	8.34	8.235	8.97	6.74	0.287	0.536	7.61	7.895	8.67	8.888
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	21	8.34	7.799	8.97	6.74	0.487	0.698	7.61	7.895	8.67	8.888
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	21	0.005	0.016	0.182	0.001	0.002	0.039	0.001	0.002	0.013	0.025
00403	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	12	7.65	7.708	8.3	7.2	0.106	0.326	7.23	7.5	7.975	8.24
00403	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	12	7.647	7.605	8.3	7.2	0.118	0.343	7.23	7.5	7.975	8.24
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	12	0.023	0.025	0.063	0.005	0.	0.017	0.006	0.011	0.032	0.059
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/18/68-12/15/98	12	55.5	55.333	72.	36.	113.333	10.646	38.7	47.5	66.	70.5
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	12	4.	5.333	16.	1.5	20.879	4.569	1.5	1.5	6.75	14.8
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	12##	1.5	1.917	4.	1.5	0.947	0.973	1.5	1.5	1.5	4.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	12	3.	4.125	12.	1.5	10.824	3.29	1.5	1.5	5.75	10.8
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	10	0.008	0.007	0.012	0.002	0.	0.004	0.002	0.002	0.011	0.012
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12##	0.001	0.002	0.004	0.001	0.	0.001	0.001	0.001	0.003	0.004
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.035	0.122	0.43	0.022	0.024	0.154	0.003	0.009	0.288	0.394
00671p	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	12	0.025	0.029	0.071	0.007	0.	0.016	0.01	0.018	0.036	0.062
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	10/20/86-12/15/98	12	58.	61.167	78.	45.	90.515	9.514	47.7	55.75	70.	77.1
00940	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	12	11.	12.083	20.	6.	20.447	4.522	6.3	8.25	16.	19.4
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	02/18/68-12/15/98	12	21.5	20.417	35.	9.	72.629	8.522	9.3	12.25	28.25	33.5
00955	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	08/29/84-12/15/98	11	5.8	5.945	9.6	3.4	5.009	2.238	3.42	3.6	8.7	9.44
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	01/26/94-12/15/98	23	170.	961.	16000.	9.	10863858.636	3296.037	30.	45.	490.	1220.
31615	LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	01/26/94-12/15/98	23	2.23	2.229	4.204	0.954	0.479	0.692	1.442	1.653	2.69	3.085
31615	GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)			GEOMETRIC MEAN =	169.462								
49567	PHOSPHOROUS PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	12	0.004	0.005	0.015	0.001	0.	0.004	0.001	0.003	0.007	0.014
49569	CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	02/22/95-12/15/98	12	0.387	0.406	0.9	0.237	0.033	0.182	0.239	0.266	0.484	0.786
49570	NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	12	0.045	0.046	0.106	0.018	0.001	0.024	0.02	0.026	0.06	0.093
49571	NITROGEN TOTAL, FIELD FILTERED, DISSOLVED, WTR MG/L	02/22/95-12/15/98	12	0.346	0.373	0.887	0.083	0.055	0.234	0.099	0.174	0.538	0.801
49572	PHOSPHOROUS TOTAL, FIELD FILTURED, DISSLVD, WTR MG/L	02/22/95-12/15/98	12	0.037	0.038	0.072	0.012	0.	0.018	0.015	0.023	0.051	0.069

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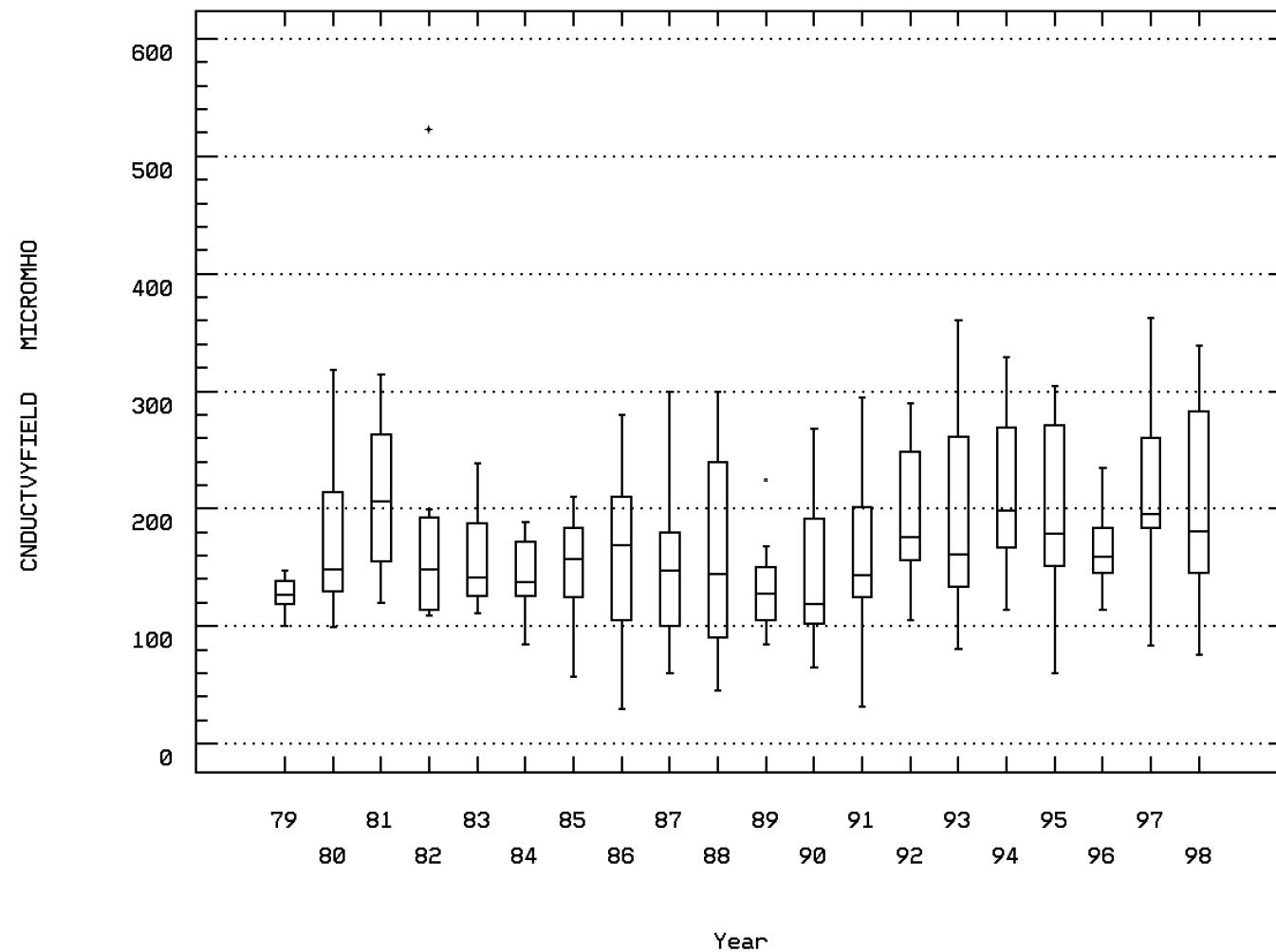
### Annual Analysis for 1998 - Station RICH0116

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	24	25.	21.925	32.3	6.	69.578	8.341	7.5	15.025	28.825	29.75
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	12	4.15	23.192	118.8	1.6	1847.219	42.979	1.75	2.4	11.25	116.46
00094p SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	24	181.	204.	339.	76.	6262.696	79.137	102.5	143.	287.25	309.5
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	12	189.5	201.917	436.	79.	11213.356	105.893	82.	117.5	275.	401.2
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	24	9.1	9.633	13.1	8.	2.43	1.559	8.05	8.55	10.6	12.65
00310p BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	12##	1.	1.167	2.	1.	0.152	0.389	1.	1.	1.	2.
00340 COD,.25N K2CR2O7 MG/L	08/15/79-12/15/98	12	8.	10.833	24.	2.5	50.288	7.091	2.5	6.25	18.5	22.8
00400p PH (STANDARD UNITS)	02/18/68-12/15/98	24	8.49	8.364	8.94	7.14	0.247	0.497	7.45	8.198	8.74	8.925
00400p CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	24	8.489	8.015	8.94	7.14	0.375	0.612	7.45	8.198	8.74	8.925
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	24	0.003	0.01	0.072	0.001	0.	0.017	0.001	0.002	0.006	0.036
00403 PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	12	7.25	7.2	8.	6.6	0.247	0.497	6.6	6.7	7.7	7.91
00403 CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	12	7.247	6.979	8.	6.6	0.301	0.548	6.6	6.7	7.7	7.91
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	12	0.057	0.105	0.251	0.01	0.009	0.095	0.013	0.02	0.2	0.251
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	12	54.	53.667	80.	24.	358.606	18.937	25.5	39.25	71.5	79.7
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	12	7.5	33.542	161.	1.5	3302.612	57.468	1.95	3.5	24.	157.7
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	12##	1.5	5.042	20.	1.5	49.521	7.037	1.5	1.5	3.75	20.
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	12	5.5	28.333	141.	1.5	2554.697	50.544	1.5	1.5	21.	137.7
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	11	0.009	0.015	0.082	0.002	0.001	0.023	0.002	0.002	0.011	0.07
00613 NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.002	0.002	0.003	0.001	0.	0.001	0.001	0.001	0.002	0.003
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	12	0.135	0.138	0.41	0.005	0.017	0.131	0.006	0.009	0.24	0.365
00671p PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	12	0.023	0.026	0.054	0.016	0.	0.01	0.017	0.02	0.029	0.048
00900 HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	12	58.5	62.167	102.	32.	549.424	23.44	34.4	42.5	86.	99.6
00940 CHLORIDE,TOTAL IN WATER MG/L	02/18/68-12/15/98	12	8.5	8.75	22.	2.5	37.023	6.085	2.5	2.5	13.5	19.6
00945 SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	12	20.	24.25	52.	7.	265.295	16.288	7.3	9.25	42.25	50.5
00955 SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	12	6.9	6.608	8.9	2.9	4.452	2.11	2.96	4.85	8.45	8.84
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	24	190.	1883.875	16000.	9.	14405267.071	3795.427	32.5	78.	1600.	7300.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/26/94-12/15/98	24	2.276	2.5	4.204	0.954	0.748	0.865	1.477	1.892	3.201	3.848
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		315.908									
49567 PHOSPHOROUS PARTICULATE, FIELD FILT.,SUSP,WTR MG/L	02/22/95-12/15/98	12	0.01	0.034	0.146	0.006	0.003	0.052	0.007	0.009	0.022	0.145
49569 CARBON PARICULATE, FIELD FILTERED, SUSP., WTR MG/L	02/22/95-12/15/98	12	0.482	1.149	5.794	0.302	2.761	1.662	0.311	0.368	0.759	5.01
49570 NITROGEN PARTICULATE, FIELD FILT., SUSP., WTR MG/L	02/22/95-12/15/98	12	0.046	0.106	0.458	0.034	0.019	0.138	0.034	0.038	0.077	0.42
49571 NITROGEN TOTAL, FIELD FILTERED, DISSOLVED,WTR MG/L	02/22/95-12/15/98	12	0.377	0.369	0.518	0.16	0.012	0.109	0.19	0.272	0.466	0.509
49572 PHOSPHOROUS TOTAL, FIELD FILTRATED, DISSLVED,WTR MG/L	02/22/95-12/15/98	12	0.03	0.033	0.067	0.022	0.	0.013	0.023	0.024	0.039	0.061

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0116 Parameter Code: 00094

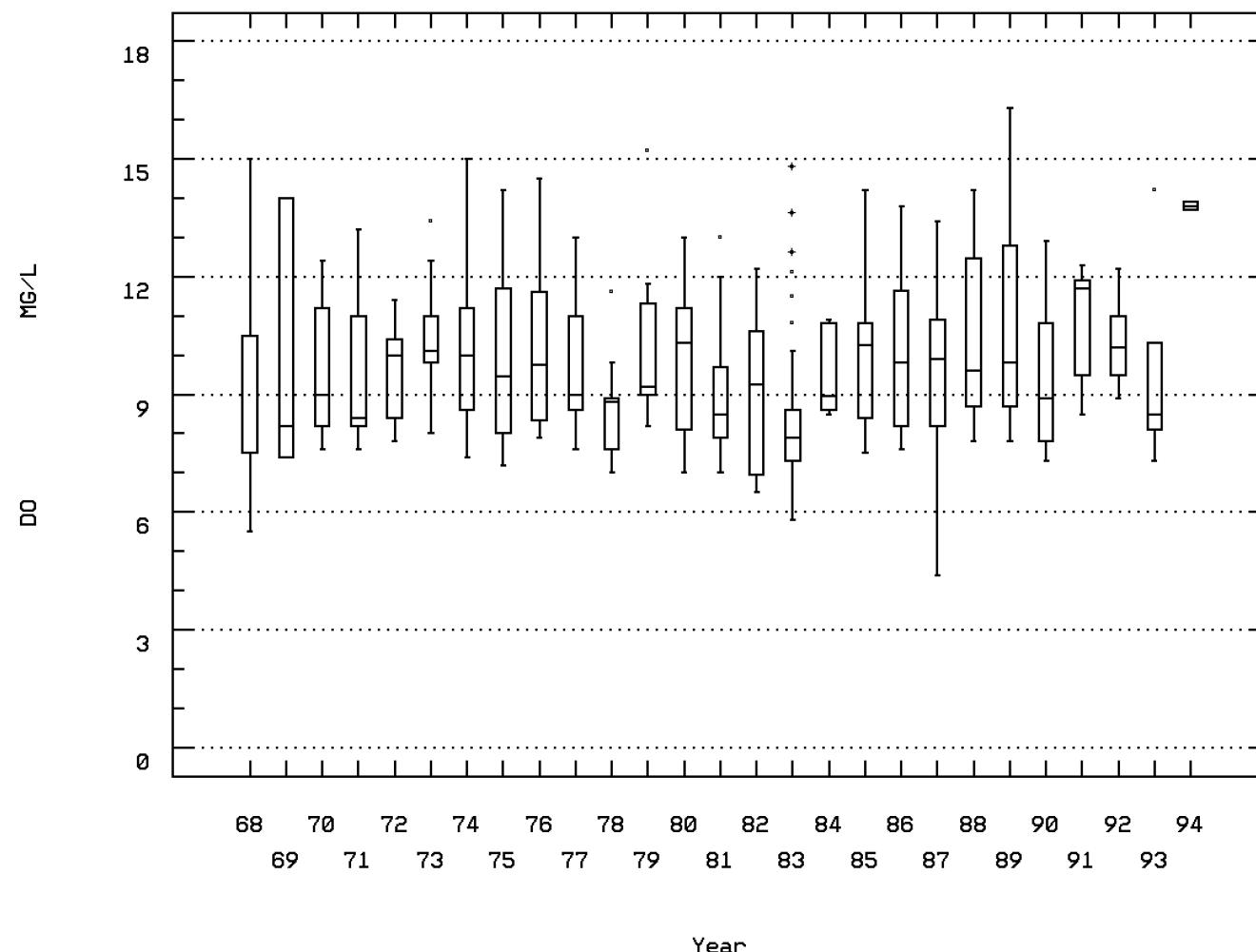
SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00300

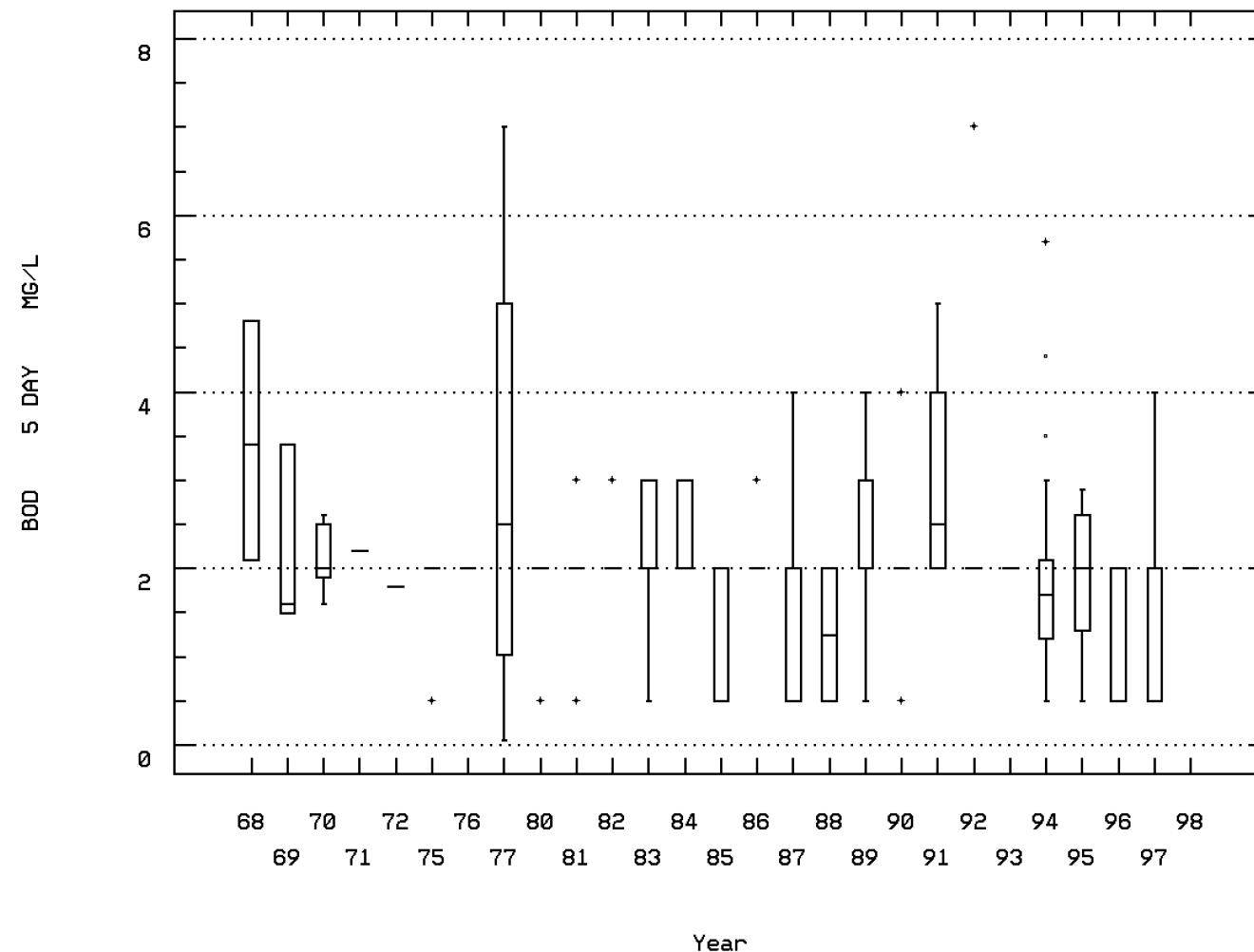
OXYGEN, DISSOLVED



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00310

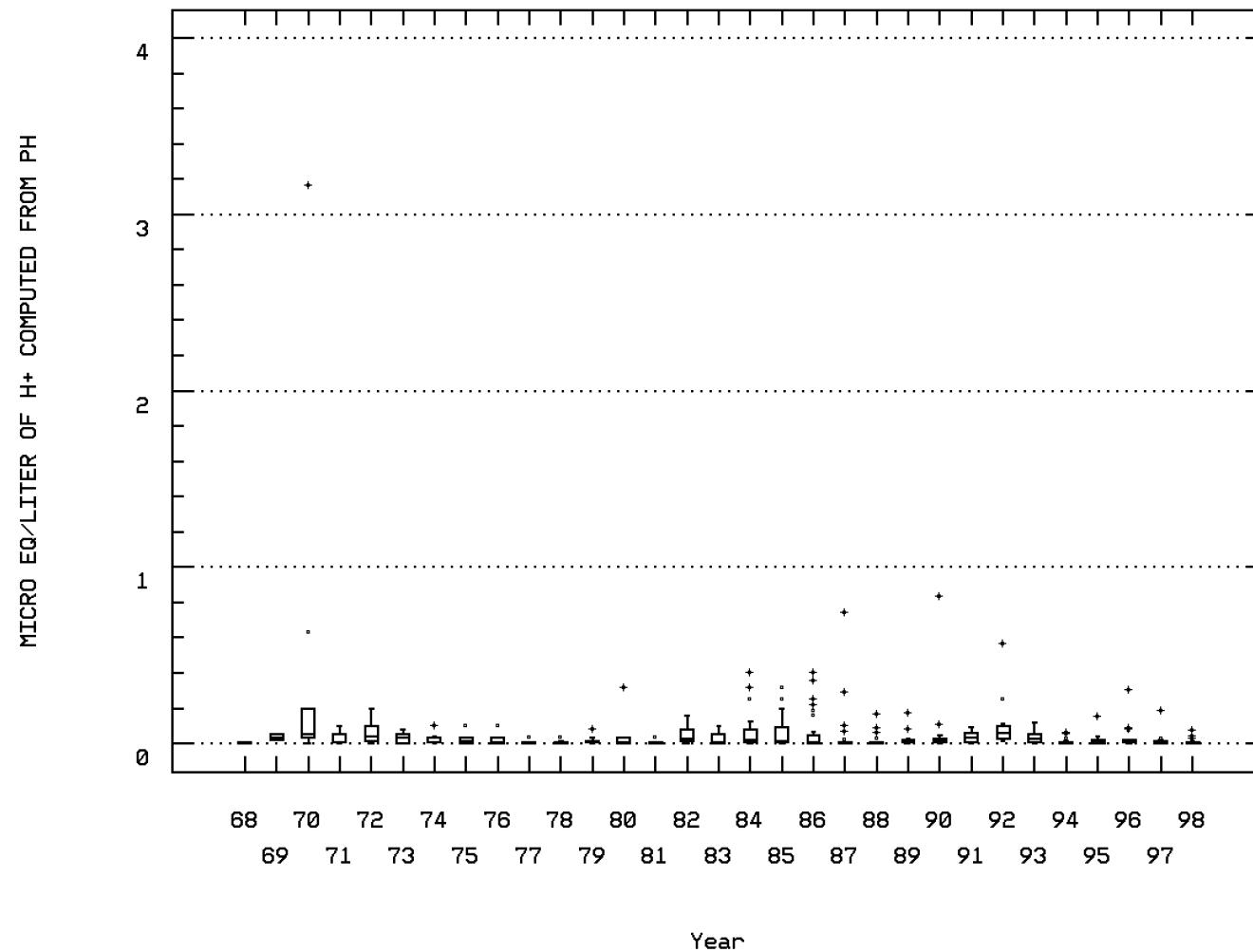
BOD, 5 DAY, 20 DEG C



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00400

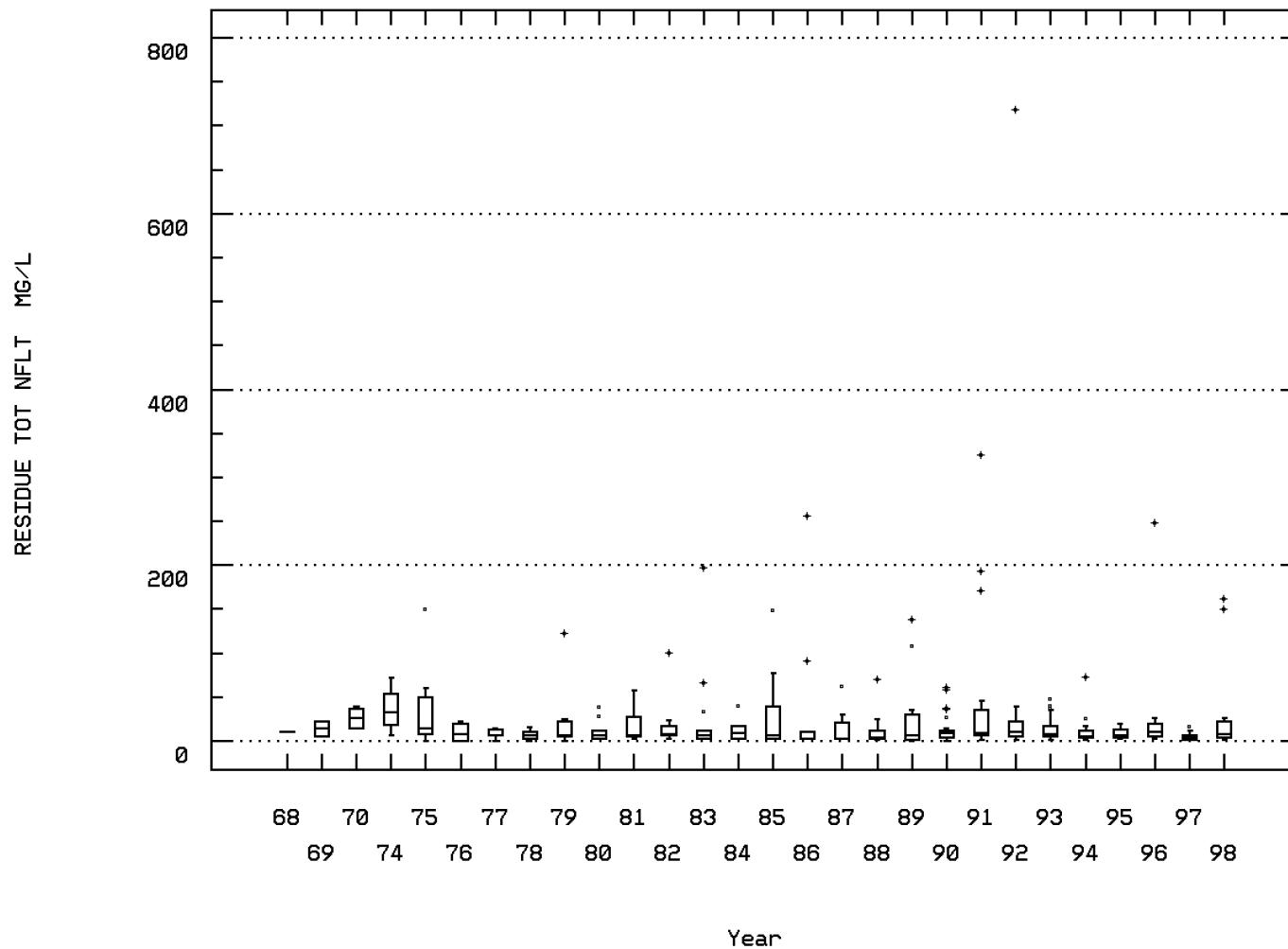
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00530

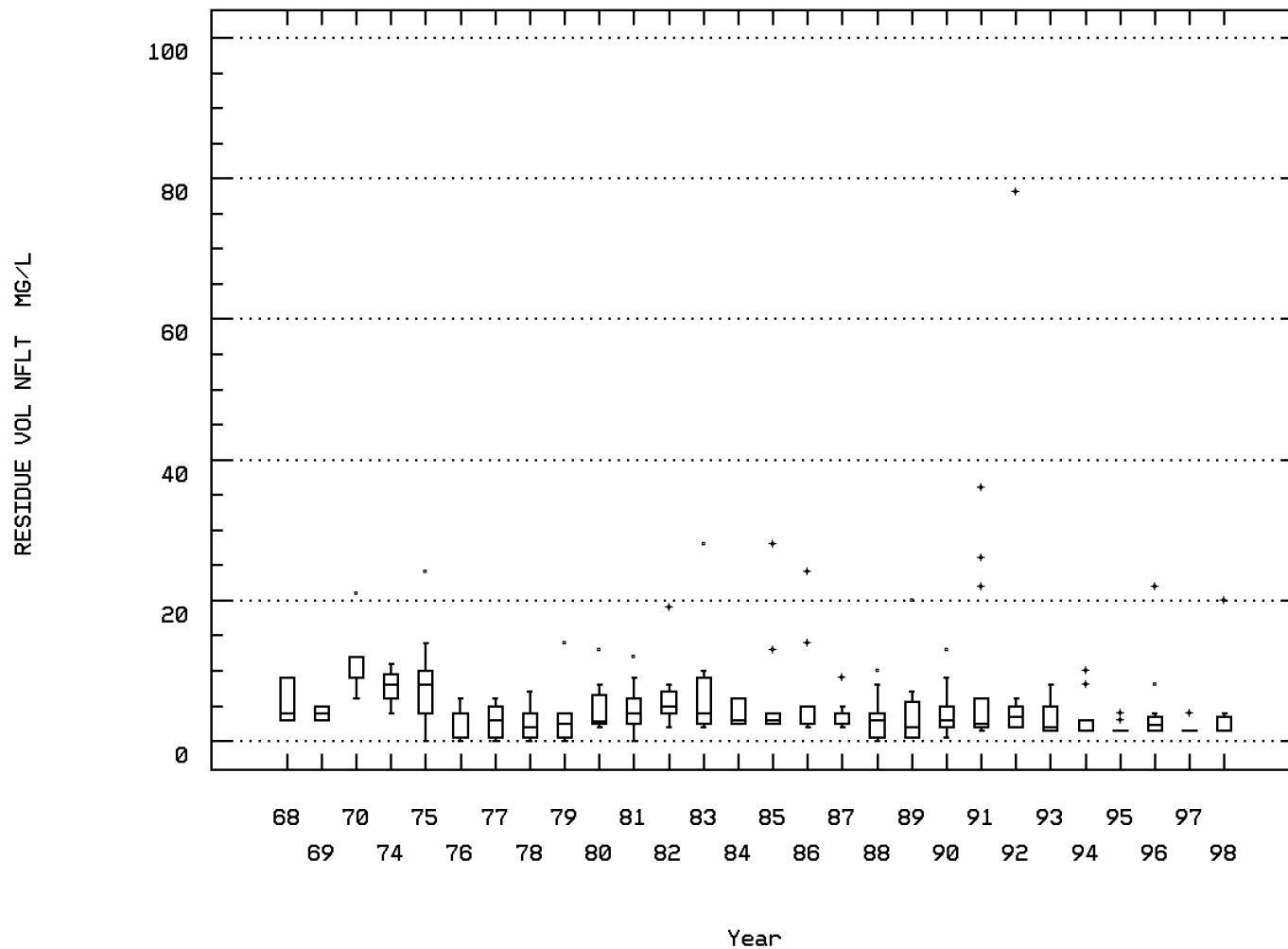
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00535

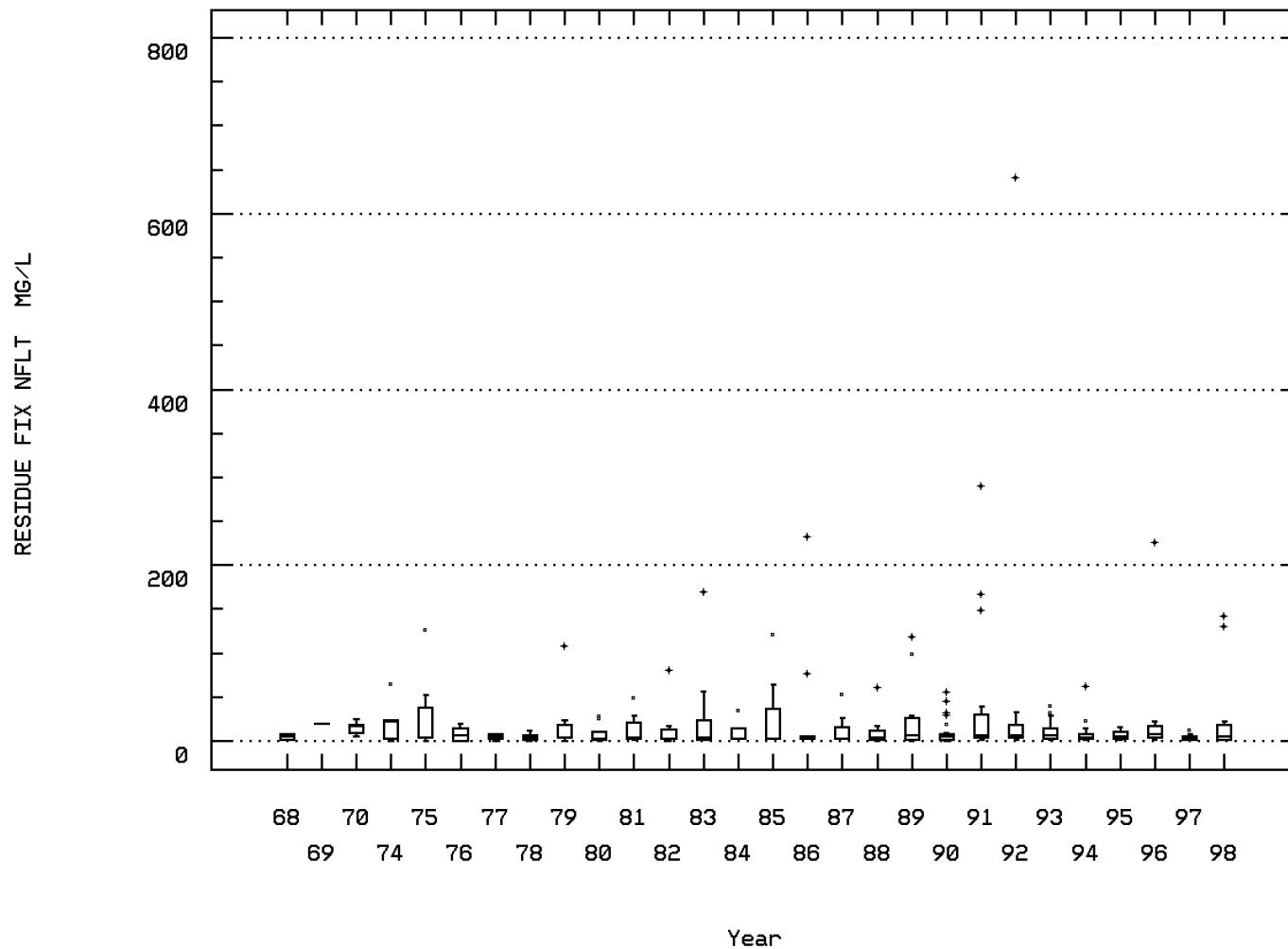
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00540

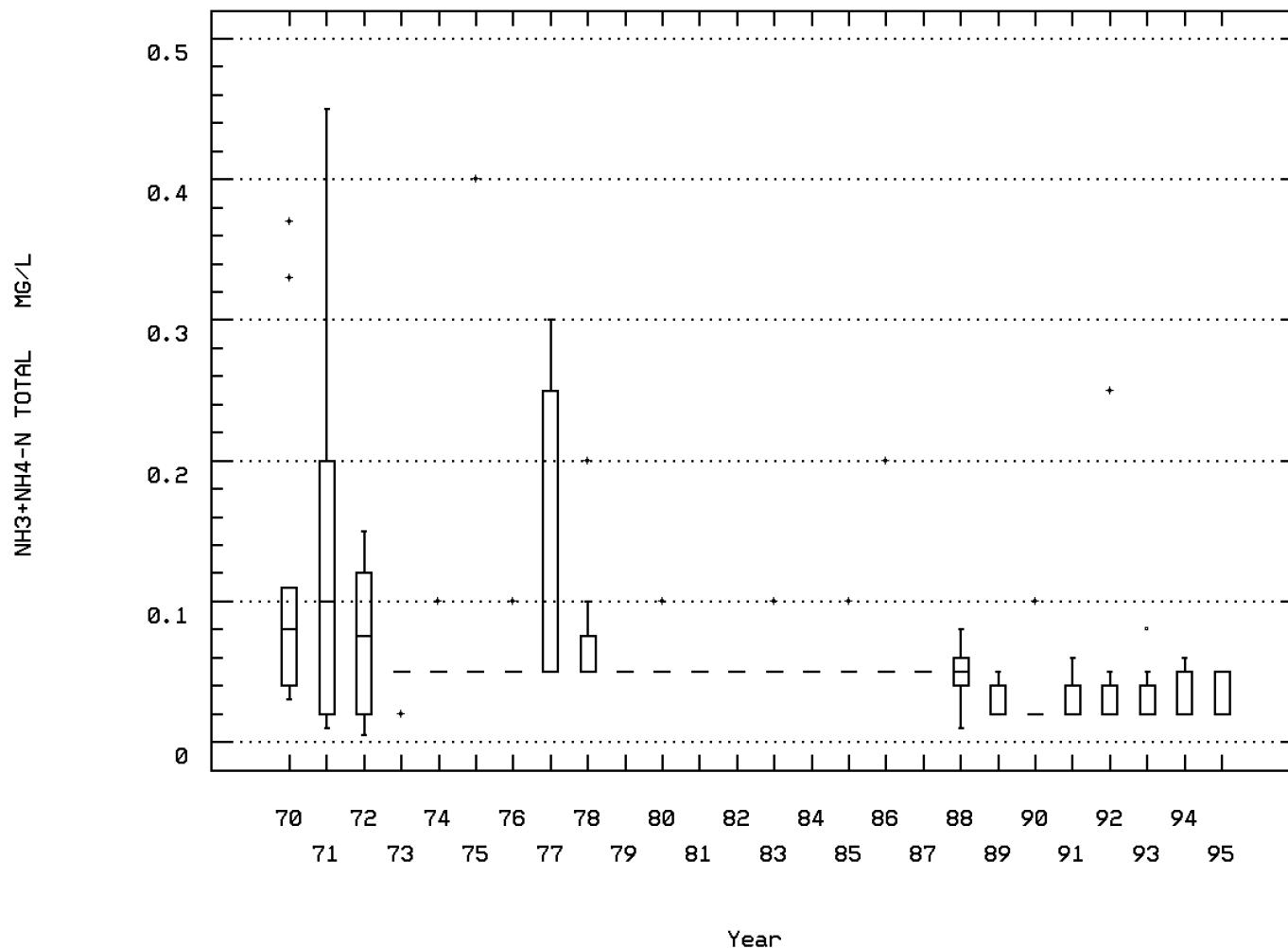
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00610

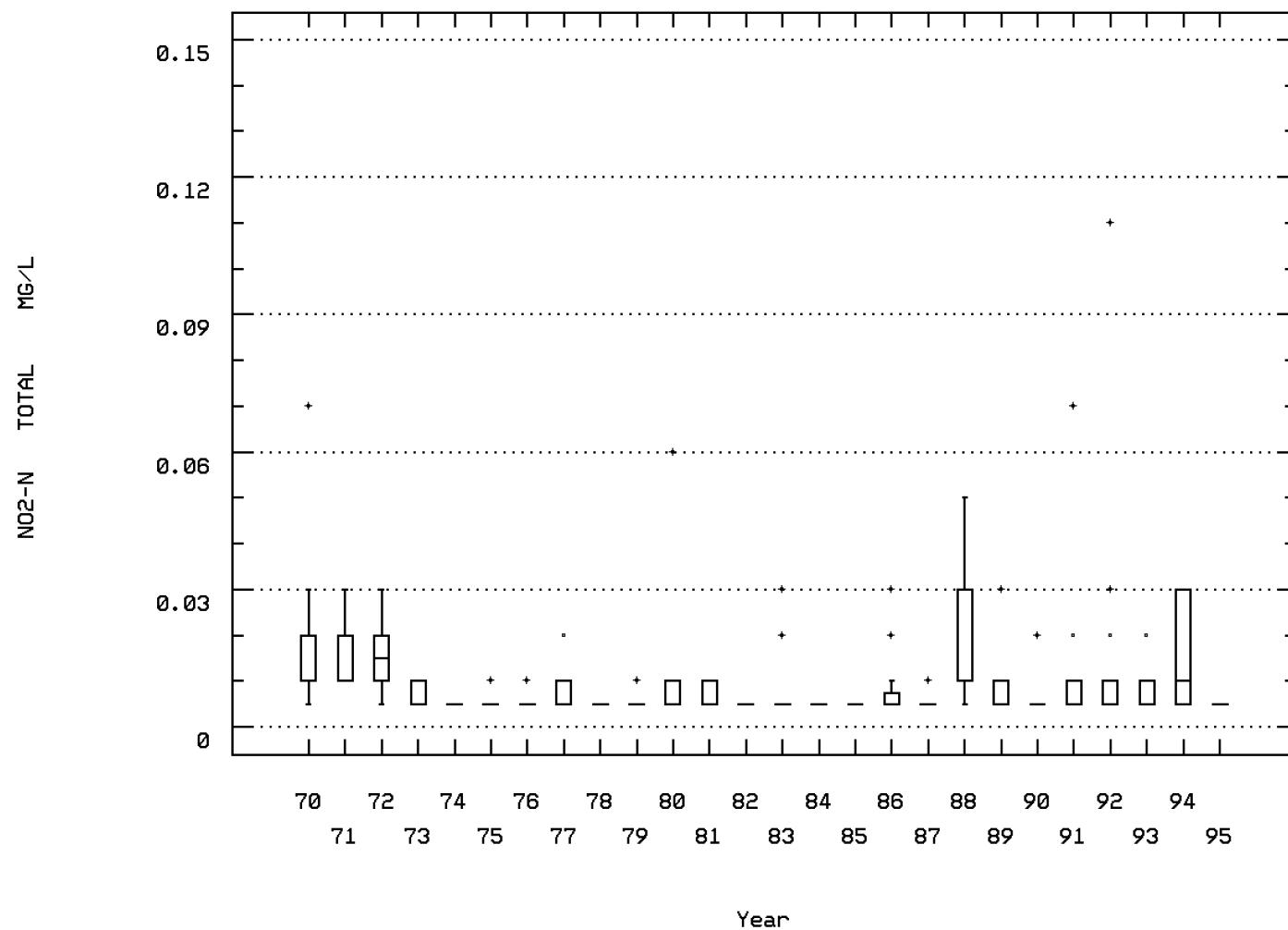
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00615

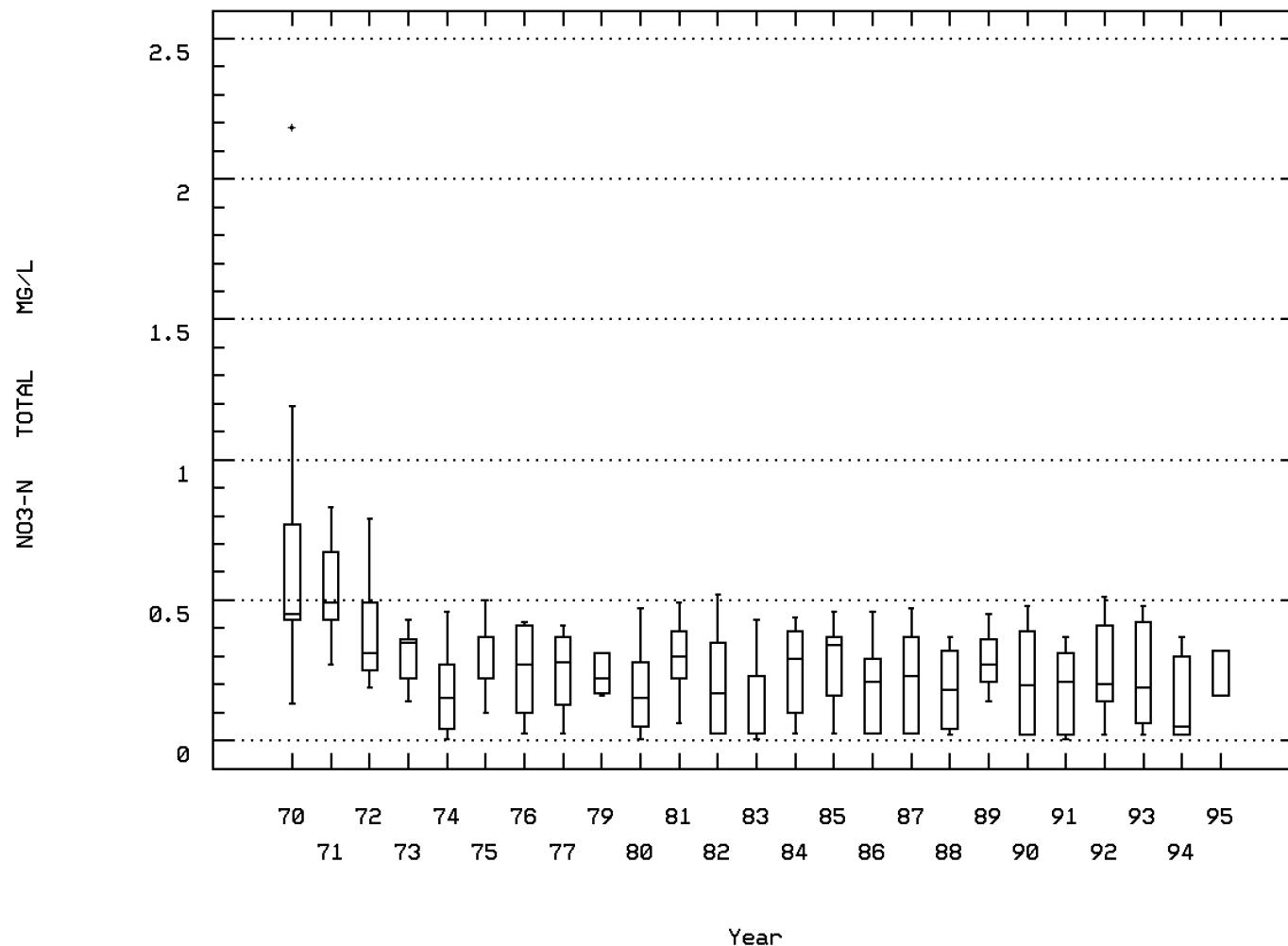
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00620

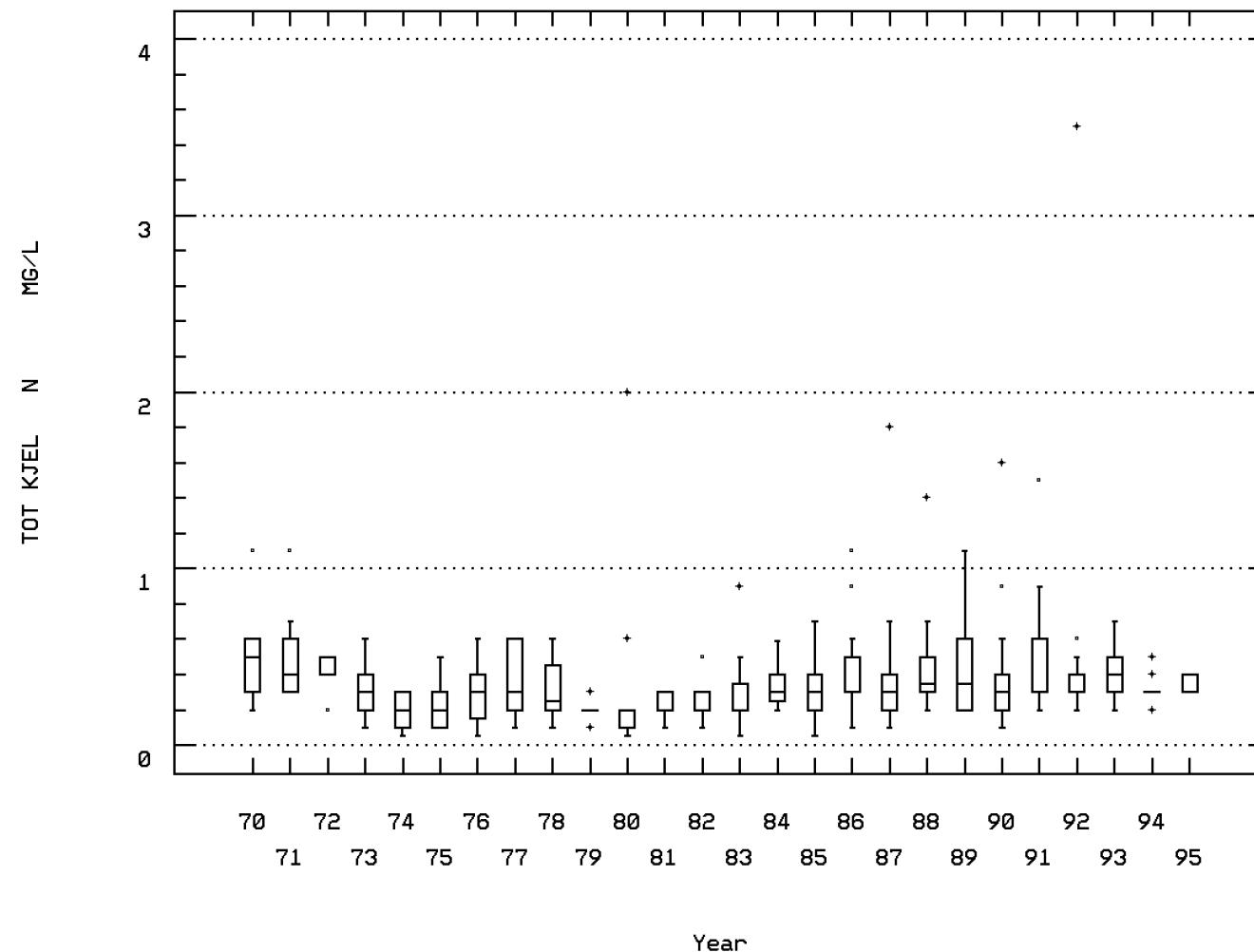
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00625

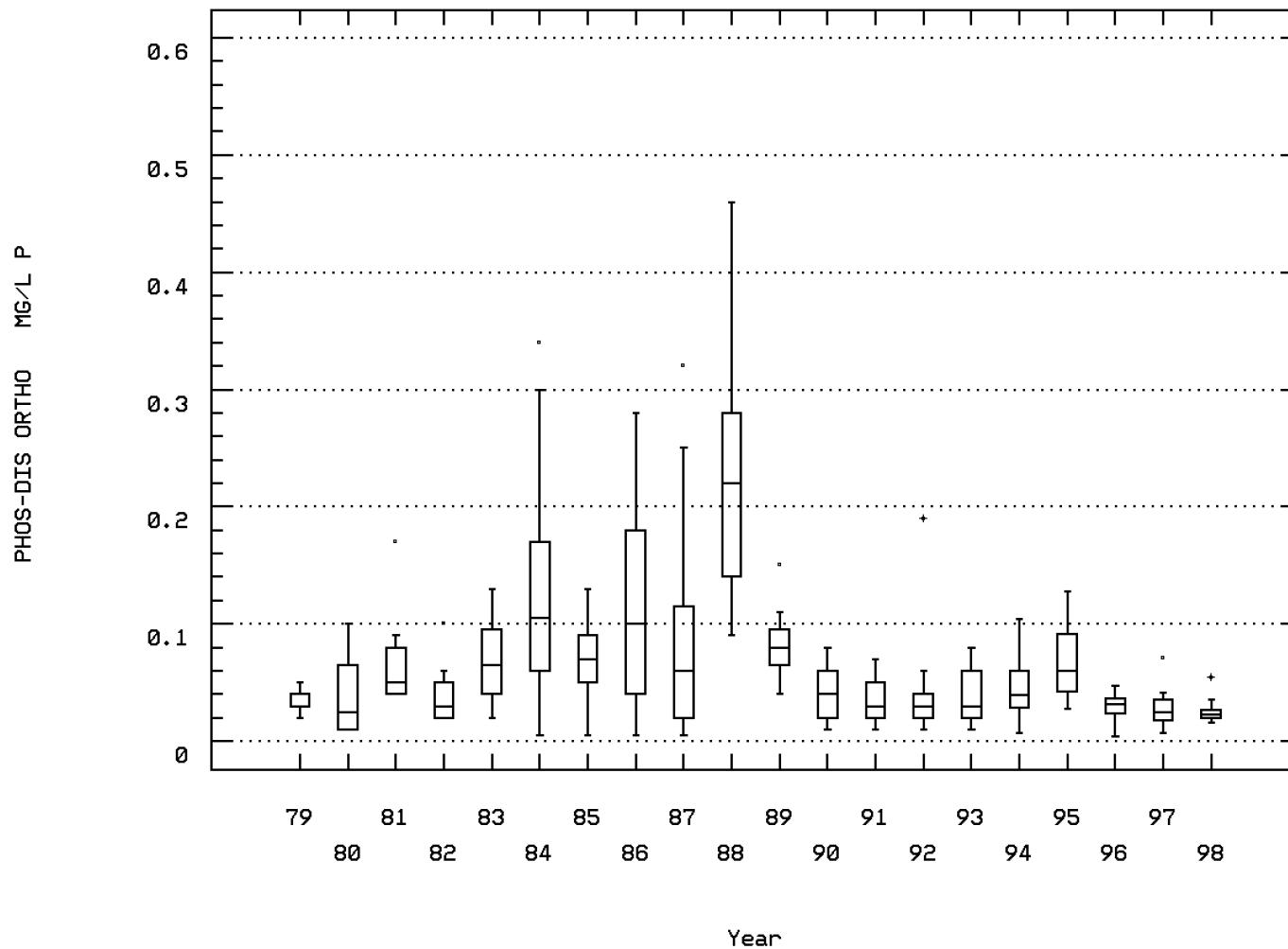
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00671

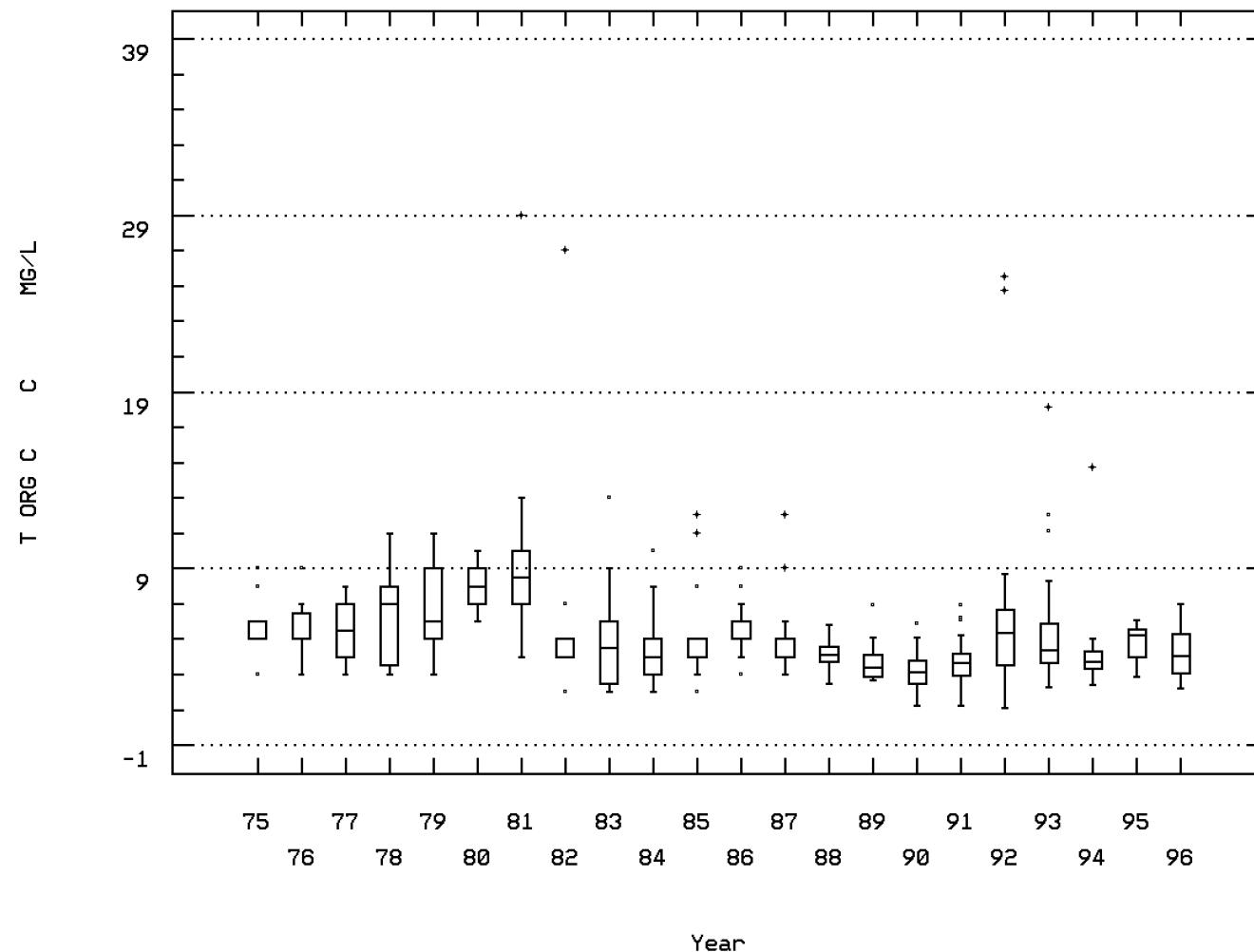
PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (M)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00680

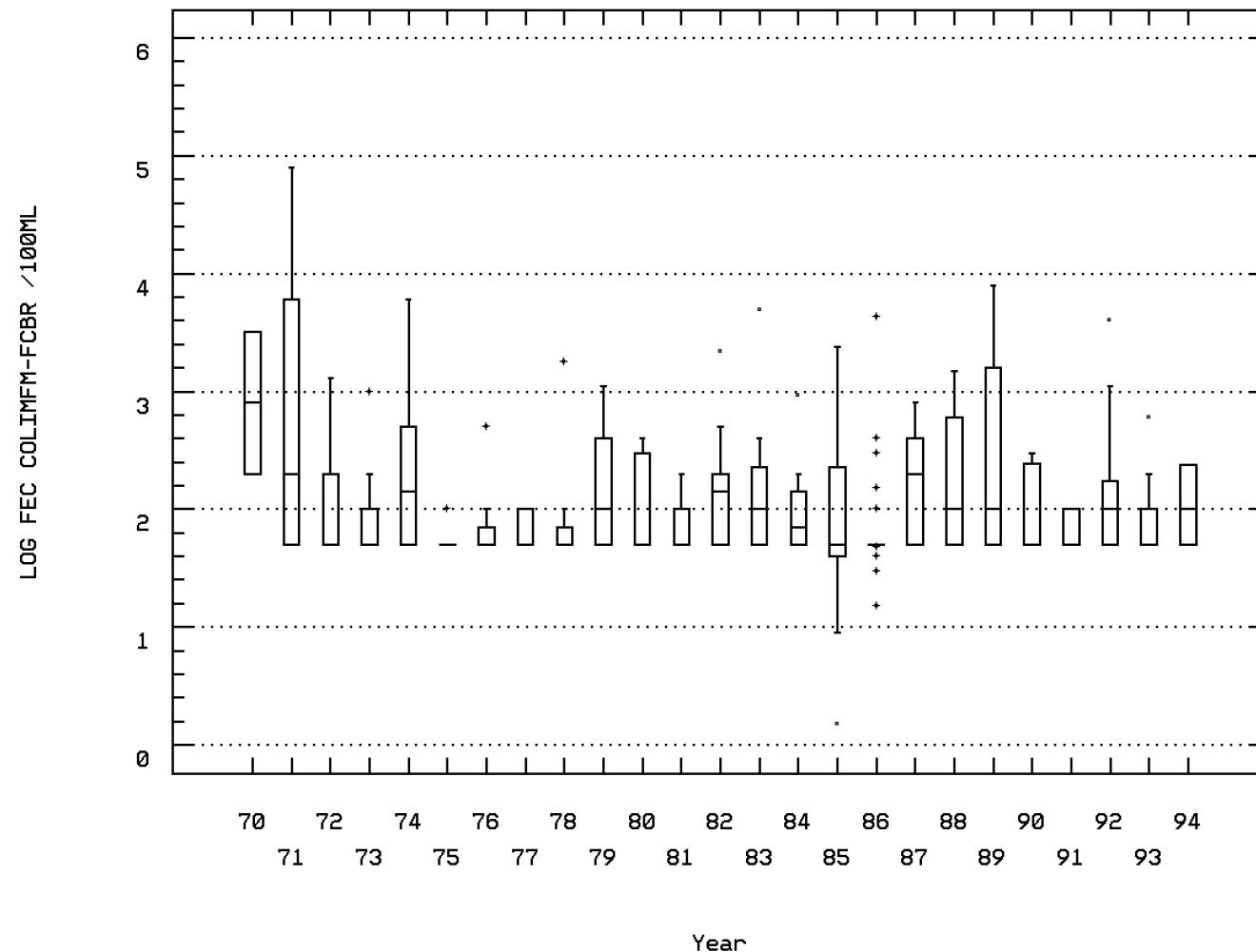
CARBON, TOTAL ORGANIC (MG/L AS C)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 31616

LOG FECAL COLIFORM, MEMBR FILTER, M-FC BR



RT. 360 BRIDGE

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	2092	28.	27.276	34.	2.5	13.015	3.608	22.	26.	29.5	31.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	27	3.1	3.781	11.1	1.6	5.704	2.388	1.78	2.	4.5	7.84
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	128	199.	205.664	522.	30.	5454.571	73.855	119.3	161.	256.75	297.1
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	44	216.5	222.386	351.	75.	3330.801	57.713	157.5	186.	257.75	321.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	62	0.	0.003	0.1	0.	0.	0.018	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	109	8.4	8.662	12.	6.7	0.911	0.954	7.6	8.	9.2	9.8
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	1998	7.9	7.953	15.	5.5	0.773	0.879	6.9	7.3	8.6	9.1
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	71	1.	1.352	5.	0.5	0.643	0.802	0.5	1.	2.	2.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/15/98	58	12.	12.552	31.	2.5	31.331	5.597	6.9	8.75	15.	20.
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	182	8.22	8.171	9.3	6.6	0.304	0.552	7.4	7.717	8.602	8.807
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	182	8.22	7.8	9.3	6.6	0.443	0.665	7.4	7.717	8.602	8.807
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	182	0.006	0.016	0.251	0.001	0.001	0.028	0.002	0.002	0.019	0.04
00403p	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	39	7.9	7.785	8.5	6.6	0.224	0.474	7.1	7.6	8.1	8.3
00403p	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	39	7.9	7.473	8.5	6.6	0.324	0.569	7.1	7.6	8.1	8.3
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	39	0.013	0.034	0.251	0.003	0.003	0.056	0.005	0.008	0.025	0.079
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	40	61.	59.55	83.	20.	213.844	14.623	41.1	51.5	72.	78.8
00500p	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	24	148.	146.083	229.	100.	880.514	29.673	106.5	123.5	165.	181.5
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	23	28.	34.739	63.	14.	253.565	15.924	17.2	22.	54.	57.2
00510p	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	23	108.	103.391	142.	14.	891.613	29.86	69.6	82.	127.	136.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	110	6.	10.918	150.	0.5	564.571	23.761	1.5	2.5	9.25	16.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	110	2.	3.027	28.	0.	16.077	4.01	1.	1.5	3.	5.9
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	106	4.	8.613	126.	0.5	411.735	20.291	1.	2.	7.	14.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	69 ##	0.025	0.034	0.19	0.002	0.001	0.026	0.016	0.02	0.04	0.06
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	81 ##	0.05	0.054	0.4	0.01	0.003	0.052	0.02	0.035	0.05	0.08
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	72 ##	0.005	0.006	0.04	0.001	0.	0.008	0.001	0.005	0.005	0.01
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	81 ##	0.005	0.009	0.06	0.005	0.	0.009	0.005	0.005	0.01	0.02
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	69	0.04	0.109	0.47	0.005	0.015	0.124	0.02	0.02	0.185	0.31
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	77	0.13	0.202	1.189	0.003	0.049	0.221	0.02	0.025	0.335	0.464
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	134	0.3	0.395	1.8	0.05	0.065	0.254	0.2	0.3	0.5	0.6
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-12/15/98	11	0.02	0.08	0.3	0.	0.013	0.115	0.001	0.005	0.1	0.3
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	107	0.1	0.132	0.47	0.02	0.008	0.088	0.05	0.07	0.2	0.262
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	63	0.08	0.098	0.31	0.01	0.005	0.069	0.03	0.05	0.12	0.21
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	116	0.06	0.085	0.33	0.005	0.005	0.071	0.02	0.04	0.108	0.21
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	119	5.	5.371	24.7	2.	6.625	2.574	3.4	4.	6.	8.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	27	70.	203.333	3600.	30.	461177.538	679.101	53.8	60.	89.	105.6
00940p	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	34	14.	14.265	24.	3.	32.14	5.669	7.	10.	19.25	22.
00945p	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	33	23.	23.424	47.	7.	75.127	8.668	12.4	17.	28.5	35.
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	53	6.7	6.821	14.8	2.2	5.017	2.24	4.3	5.15	8.2	9.48
01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-04/08/93	3 ##	5.	4.167	5.	2.5	2.083	1.443	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/08/93	4 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/08/93	4 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/08/93	4 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/08/93	4 ##	5.	6.	9.	5.	4.	2.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/08/93	4 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	79	50.	395.025	8000.	40.	1378607.563	1174.141	50.	50.	200.	600.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	79	1.699	2.065	3.903	1.602	0.275	0.525	1.699	1.699	2.301	2.778
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			116.146								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	27 ##	0.05	0.054	0.1	0.05	0.	0.013	0.05	0.05	0.05	0.06
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	34	0.035	0.034	0.1	0.005	0.001	0.023	0.005	0.01	0.05	0.05
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/08/93	5 ##	0.25	0.66	2.5	0.15	1.061	1.03	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	264	12.55	12.064	23.	0.	37.035	6.086	4.	6.55	18.	19.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	30	7.5	23.15	237.	1.6	2333.343	48.305	2.12	3.375	14.825	100.4
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	117	152.	167.393	339.	60.	4454.758	66.744	90.	114.	210.	271.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	56	152.	164.839	436.	2.	4972.974	70.519	102.	118.25	194.75	255.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	54	0.	0.002	0.1	0.	0.	0.014	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	80	11.95	11.979	16.5	9.1	2.311	1.52	10.1	10.625	12.875	13.8
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	195	10.	10.412	16.3	7.	3.577	1.891	8.6	8.7	11.8	13.08
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	104	1.	1.548	7.	0.5	0.897	0.947	1.	1.	2.	2.9
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/15/98	91	11.	11.429	24.	1.	24.581	4.958	6.	8.	15.	19.
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	178	7.59	7.653	9.3	5.5	0.438	0.662	6.91	7.188	8.128	8.6
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	178	7.59	7.142	9.3	5.5	0.701	0.837	6.91	7.187	8.127	8.6
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	178	0.026	0.072	3.162	0.001	0.062	0.249	0.003	0.007	0.065	0.123
00403p	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	54	7.3	7.344	8.5	6.	0.164	0.405	6.85	7.175	7.7	7.8
00403p	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	54	7.3	7.118	8.5	6.	0.216	0.465	6.85	7.175	7.7	7.8
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	54	0.05	0.076	1.	0.003	0.019	0.138	0.016	0.02	0.067	0.142
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	55	45.	45.636	80.	3.	277.013	16.644	26.4	34.	59.	69.
00500p	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	29	120.	130.	252.	76.	1452.571	38.113	90.	102.5	156.5	182.
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	29	27.	26.552	47.	6.	101.256	10.063	11.	19.	33.5	40.
00510p	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	28	89.5	103.393	212.	66.	1189.877	34.495	69.8	79.5	123.75	153.5
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	133	6.	22.801	325.	0.	2049.174	45.268	1.5	2.5	25.	48.8
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	133	2.5	4.316	36.	0.	28.263	5.316	0.5	1.5	5.	9.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	132	4.	19.004	289.	0.	1626.185	40.326	0.5	2.	20.	38.7
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	70	0.02	0.027	0.1	0.002	0.	0.019	0.011	0.02	0.029	0.05
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	101 ##	0.05	0.058	0.37	0.005	0.004	0.06	0.02	0.04	0.05	0.074
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	68 ##	0.005	0.005	0.02	0.001	0.	0.003	0.001	0.003	0.005	0.066
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	101 ##	0.005	0.01	0.07	0.005	0.	0.009	0.005	0.005	0.01	0.02
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	68	0.25	0.237	0.47	0.008	0.024	0.156	0.02	0.06	0.36	0.441
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	97	0.31	0.324	2.179	0.005	0.059	0.242	0.056	0.225	0.41	0.472
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	146	0.3	0.326	1.5	0.05	0.043	0.208	0.1	0.2	0.4	0.5
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-12/15/98	14	0.25	0.215	0.5	0.008	0.031	0.176	0.009	0.04	0.4	0.45
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	112	0.1	0.14	0.5	0.04	0.01	0.102	0.05	0.05	0.2	0.3
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	52	0.055	0.095	0.48	0.01	0.009	0.094	0.02	0.033	0.118	0.237
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	135	0.05	0.079	0.46	0.005	0.006	0.079	0.02	0.03	0.09	0.204
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	130	4.25	5.293	29.	1.	14.562	3.816	2.41	3.275	6.	8.27
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	52	58.	60.538	102.	28.	321.155	17.921	40.3	46.	74.	88.7
00940p	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	52	9.	10.981	34.	2.5	52.872	7.271	4.	5.	14.	22.7
00945p	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	51	15.	19.431	65.	7.	149.29	12.218	9.2	11.	23.	36.6
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	61	7.6	7.433	12.	2.9	4.071	2.018	4.5	6.1	8.8	10.
01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-04/08/93	6 ##	3.25	3.083	5.	1.	4.442	2.108	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/08/93	8 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/08/93	12 ##	5.	6.667	20.	5.	19.697	4.438	5.	5.	5.	17.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/08/93	12 ##	5.	7.417	20.	5.	20.083	4.481	5.	5.	9.75	17.
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/08/93	13 ##	5.	7.615	30.	3.	49.756	7.054	3.8	5.	7.	22.8
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/08/93	12 ##	7.5	20.	97.	5.	689.818	26.264	5.	5.	28.25	76.9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	110	75.	369.636	8000.	15.	959239.775	979.408	50.	50.	200.	927.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	110	1.849	2.07	3.903	1.176	0.292	0.54	1.699	1.699	2.301	2.967
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			117.413								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	35 ##	0.05	0.054	0.1	0.05	0.	0.014	0.05	0.05	0.05	0.07
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	35	0.03	0.037	0.1	0.01	0.	0.021	0.01	0.02	0.05	0.06
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/08/93	12 ##	0.25	0.471	2.5	0.15	0.434	0.659	0.15	0.175	0.438	1.96

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

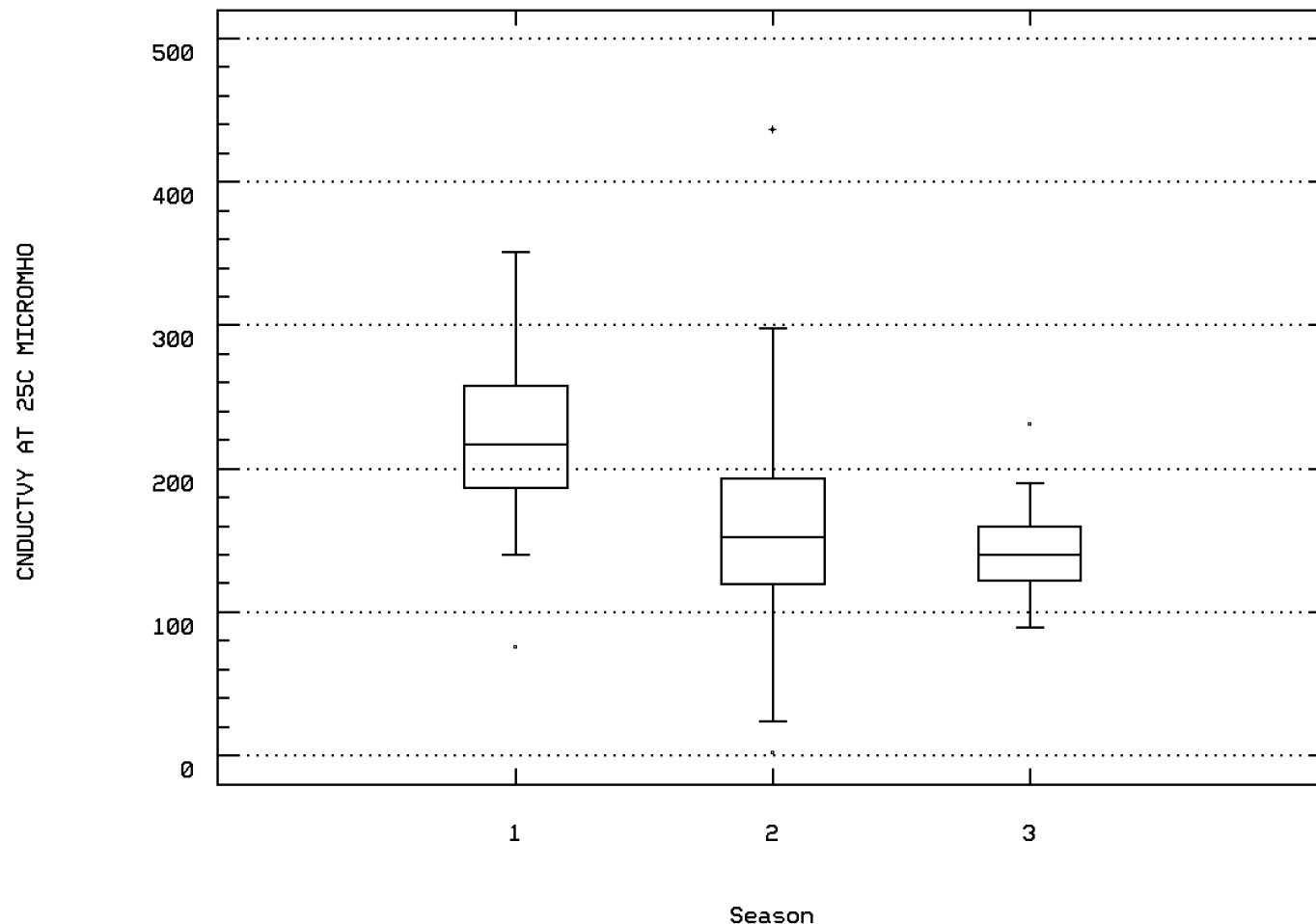
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0116

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/18/68-12/15/98	165	20.	19.232	30.8	1.	42.717	6.536	10.64	14.	24.45	27.94
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	12/20/88-12/15/98	27	6.3	11.067	118.8	0.6	481.672	21.947	1.88	4.6	8.7	15.88
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/15/79-12/15/98	113	143.	143.08	271.	40.	1422.645	37.718	102.	120.	161.	185.6
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/23/68-12/15/98	51	140.	143.392	231.	89.	883.283	29.72	111.2	122.	160.	179.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/84-09/22/98	62	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/11/84-12/15/98	85	9.2	9.533	12.6	7.8	1.427	1.195	8.16	8.6	10.55	11.34
00300p	OXYGEN, DISSOLVED MG/L	02/18/68-02/01/94	100	8.95	9.208	12.6	4.4	1.913	1.383	7.8	8.3	10.35	11.
00310p	BOD, 5 DAY, 20 DEG C MG/L	02/18/68-12/15/98	87	2.	1.836	7.	0.05	1.274	1.129	1.	1.	2.	3.
00340	COD, 25N K2CR2O7 MG/L	08/15/79-12/15/98	68	9.	11.647	75.	0.5	95.	9.747	4.9	7.	15.	19.4
00400p	PH (STANDARD UNITS)	02/18/68-12/15/98	166	8.065	7.957	9.18	6.08	0.5	0.707	7.	7.5	8.51	8.841
00400p	CONVERTED PH (STANDARD UNITS)	02/18/68-12/15/98	166	8.065	7.355	9.18	6.08	0.866	0.93	7.	7.5	8.51	8.841
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	166	0.009	0.044	0.832	0.001	0.011	0.105	0.001	0.003	0.032	0.1
00403p	PH, LAB, STANDARD UNITS SU	02/18/68-12/15/98	51	7.4	7.396	8.3	6.6	0.138	0.371	6.9	7.2	7.6	7.88
00403p	CONVERTED PH, LAB, STANDARD UNITS	02/18/68-12/15/98	51	7.4	7.245	8.3	6.6	0.161	0.402	6.9	7.2	7.6	7.88
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/18/68-12/15/98	51	0.04	0.057	0.251	0.005	0.003	0.053	0.013	0.025	0.063	0.126
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	02/18/68-12/15/98	51	44.	44.627	66.	25.	72.438	8.511	33.	40.	52.	56.8
00500p	RESIDUE, TOTAL (MG/L)	02/18/68-06/01/95	31	107.	166.226	1078.	74.	47456.714	217.846	82.	94.	128.	196.6
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	02/18/68-06/01/95	31	31.	63.194	921.	6.	25840.895	160.751	9.2	20.	44.	74.6
00510p	RESIDUE, TOTAL FIXED (MG/L)	02/18/68-06/01/95	31	78.	103.032	754.	18.	15272.366	123.581	56.2	70.	90.	139.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/18/68-12/15/98	125	9.	25.584	718.	0.5	5053.438	71.088	4.	6.	18.5	39.8
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	02/18/68-12/15/98	125	3.	5.048	78.	0.	63.909	7.994	1.	1.5	6.	9.4
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	02/18/68-12/15/98	125	7.	20.58	640.	0.	4034.598	63.518	2.	4.	15.	31.4
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	68##	0.02	0.027	0.1	0.002	0.	0.02	0.005	0.02	0.025	0.05
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/09/70-06/01/95	85##	0.05	0.065	0.45	0.01	0.004	0.066	0.02	0.045	0.05	0.118
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	69##	0.005	0.005	0.02	0.001	0.	0.003	0.001	0.004	0.005	0.005
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	84##	0.005	0.01	0.11	0.005	0.	0.015	0.005	0.005	0.005	0.02
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	07/11/84-12/15/98	69	0.2	0.19	0.6	0.002	0.02	0.14	0.02	0.038	0.31	0.36
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	02/09/70-06/01/95	74	0.22	0.237	0.83	0.005	0.028	0.166	0.025	0.07	0.353	0.45
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/09/70-06/01/95	130	0.3	0.396	3.5	0.05	0.145	0.38	0.2	0.2	0.4	0.6
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	08/16/83-12/15/98	12	0.2	0.162	0.3	0.002	0.016	0.126	0.003	0.014	0.3	0.3
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/15/79-12/14/95	93	0.08	0.099	1.2	0.03	0.016	0.126	0.05	0.05	0.1	0.148
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	07/11/84-01/29/96	53	0.04	0.051	0.11	0.01	0.001	0.026	0.024	0.03	0.07	0.086
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/15/79-12/15/98	113	0.03	0.042	0.19	0.004	0.001	0.033	0.01	0.02	0.06	0.09
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	03/24/75-08/20/96	124	4.	4.817	25.5	1.	9.089	3.015	2.35	3.	5.975	9.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/20/86-12/15/98	38	57.5	59.	186.	30.	539.027	23.217	43.8	50.	63.25	68.2
00940p	CHLORIDE, TOTAL IN WATER MG/L	02/18/68-12/15/98	40	6.5	7.013	21.	2.	17.083	4.133	2.5	4.25	8.	11.
00945p	SULFATE, TOTAL (MG/L AS SO4)	02/18/68-12/15/98	38	11.	12.921	36.	8.	26.777	5.175	9.	10.	13.25	19.3
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/29/84-12/15/98	60	7.55	6.887	15.4	0.5	6.29	2.508	3.41	5.4	8.275	9.49
01002	ARSENIC, TOTAL (UG/L AS AS)	04/28/71-04/08/93	10##	1.75	2.45	5.	0.5	3.525	1.877	0.55	1.	5.	5.
01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-04/08/93	10##	5.	4.1	5.	0.5	3.6	1.897	0.5	3.875	5.	5.
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-04/08/93	16##	5.	6.594	20.	0.5	28.641	5.352	3.65	5.	5.	20.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-04/08/93	15##	5.	7.667	20.	5.	20.952	4.577	5.	5.	10.	17.
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-04/08/93	13##	5.	11.5	60.	1.	233.667	15.286	1.6	5.	14.5	42.
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-04/08/93	16	10.	16.563	80.	5.	352.396	18.772	5.	5.	20.	45.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	89##	50.	1748.051	80000.	1.5	92812294.807	9633.914	50.	50.	100.	800.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-02/17/94	89##	1.699	2.002	4.903	0.176	0.497	0.705	1.699	1.699	2.	2.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				100.427								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-09/11/80	37##	0.05	0.065	0.3	0.025	0.002	0.049	0.05	0.05	0.05	0.1
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/01/95	40	0.045	0.037	0.1	0.005	0.001	0.023	0.005	0.01	0.05	0.068
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-04/08/93	11##	0.25	0.214	0.25	0.15	0.003	0.05	0.15	0.15	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0116 Parameter Code: 00095

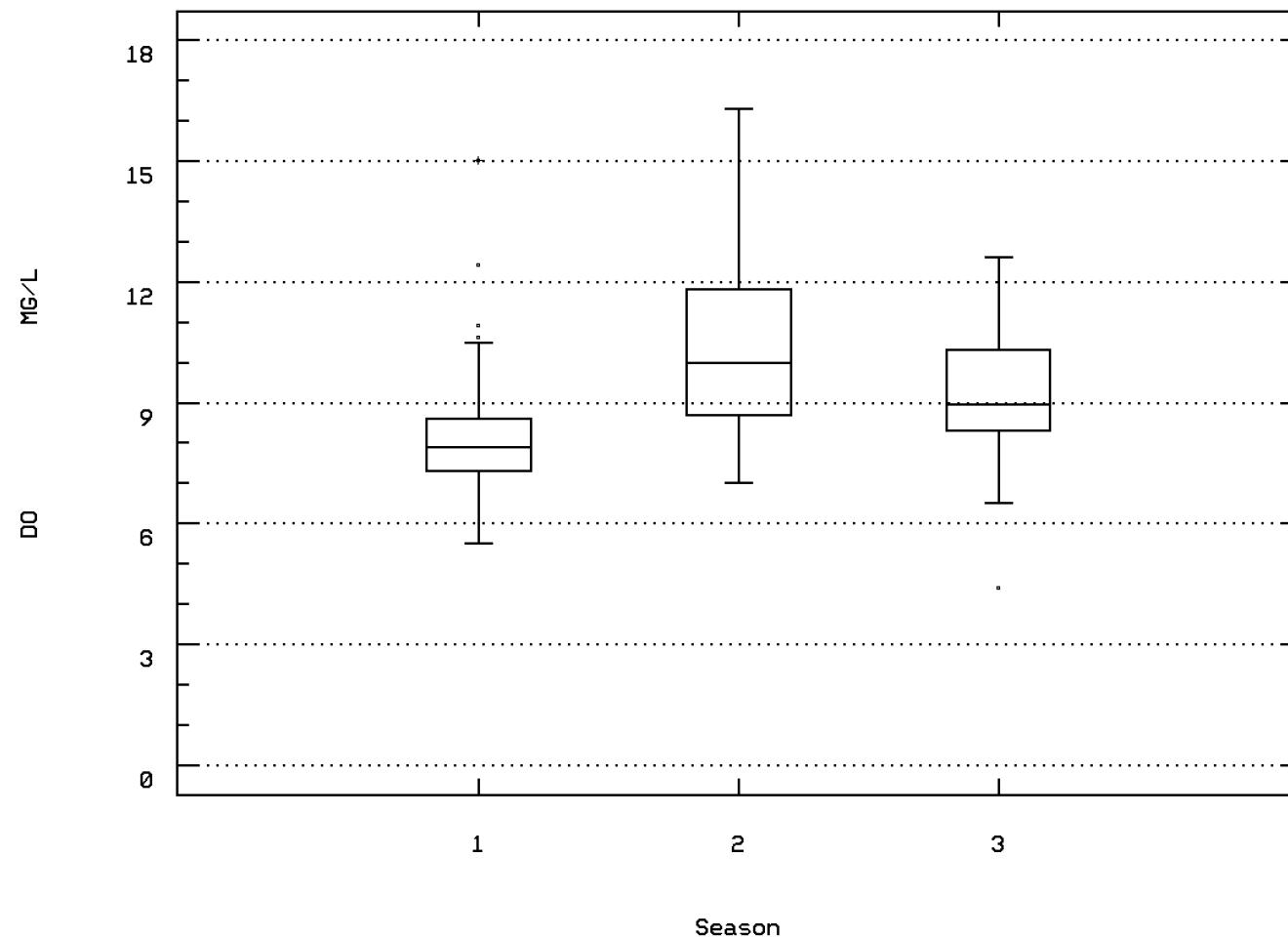
SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00300

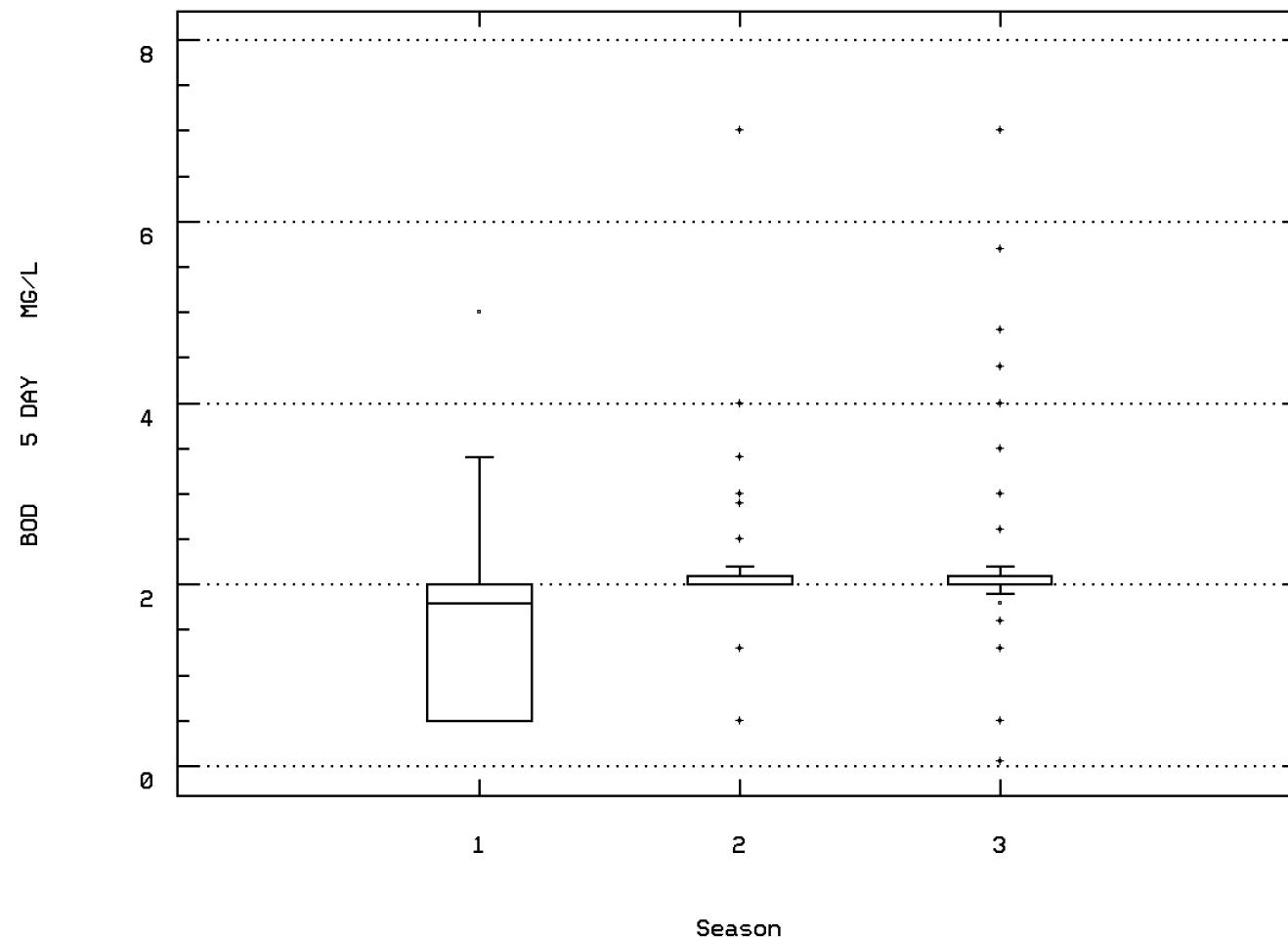
OXYGEN, DISSOLVED



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00310

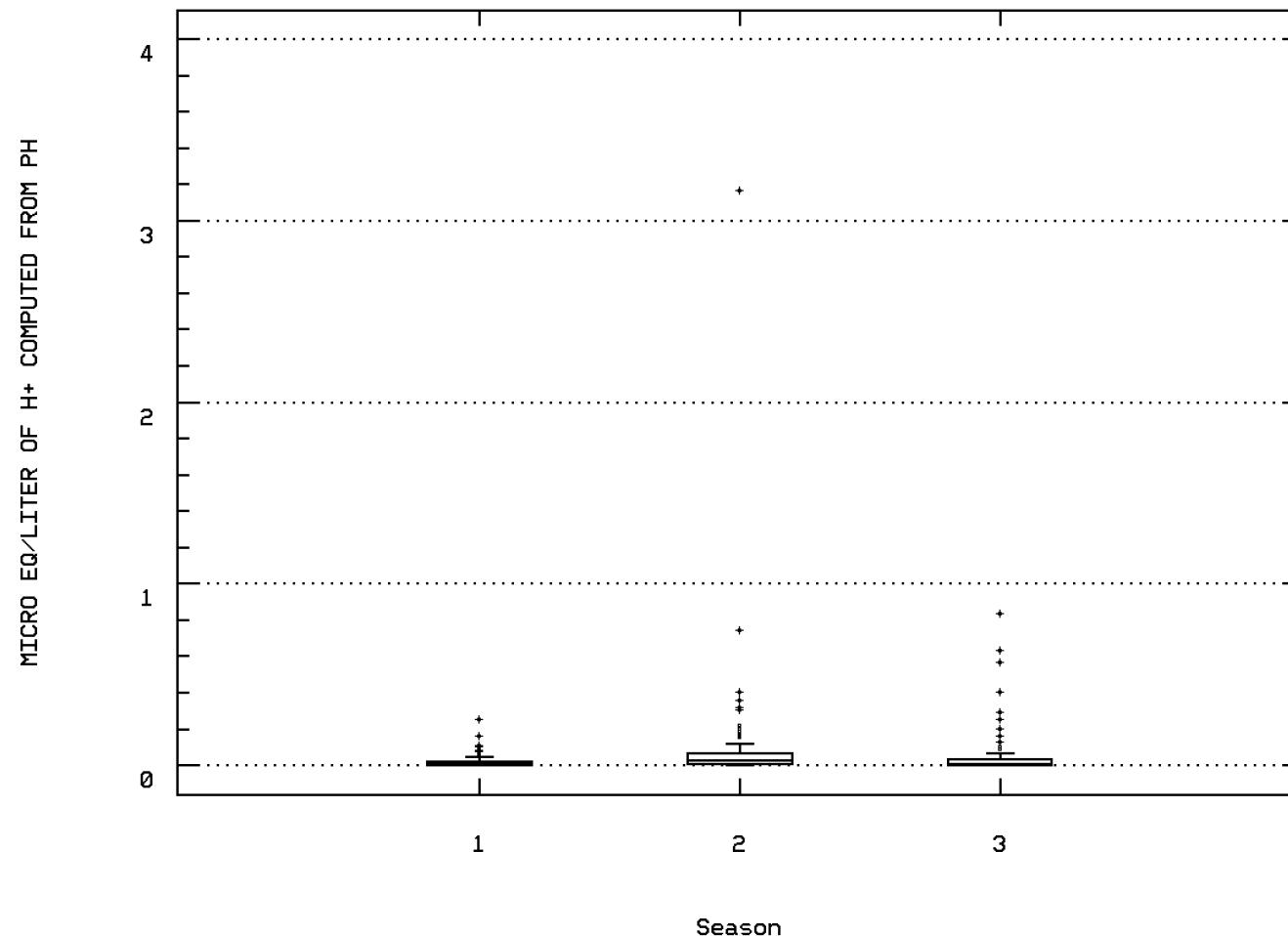
BOD, 5 DAY, 20 DEG C



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00400

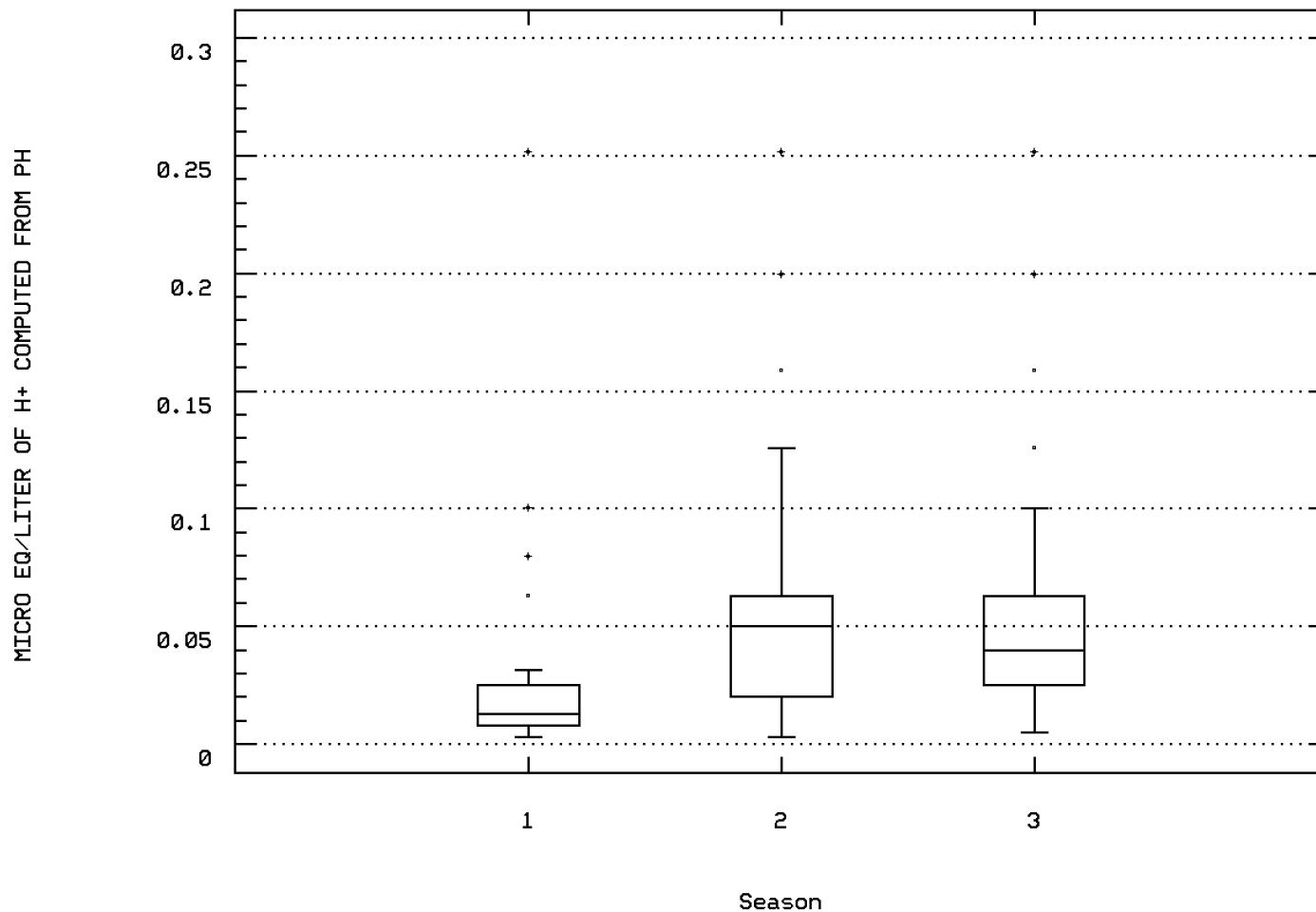
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 360 BRIDGE

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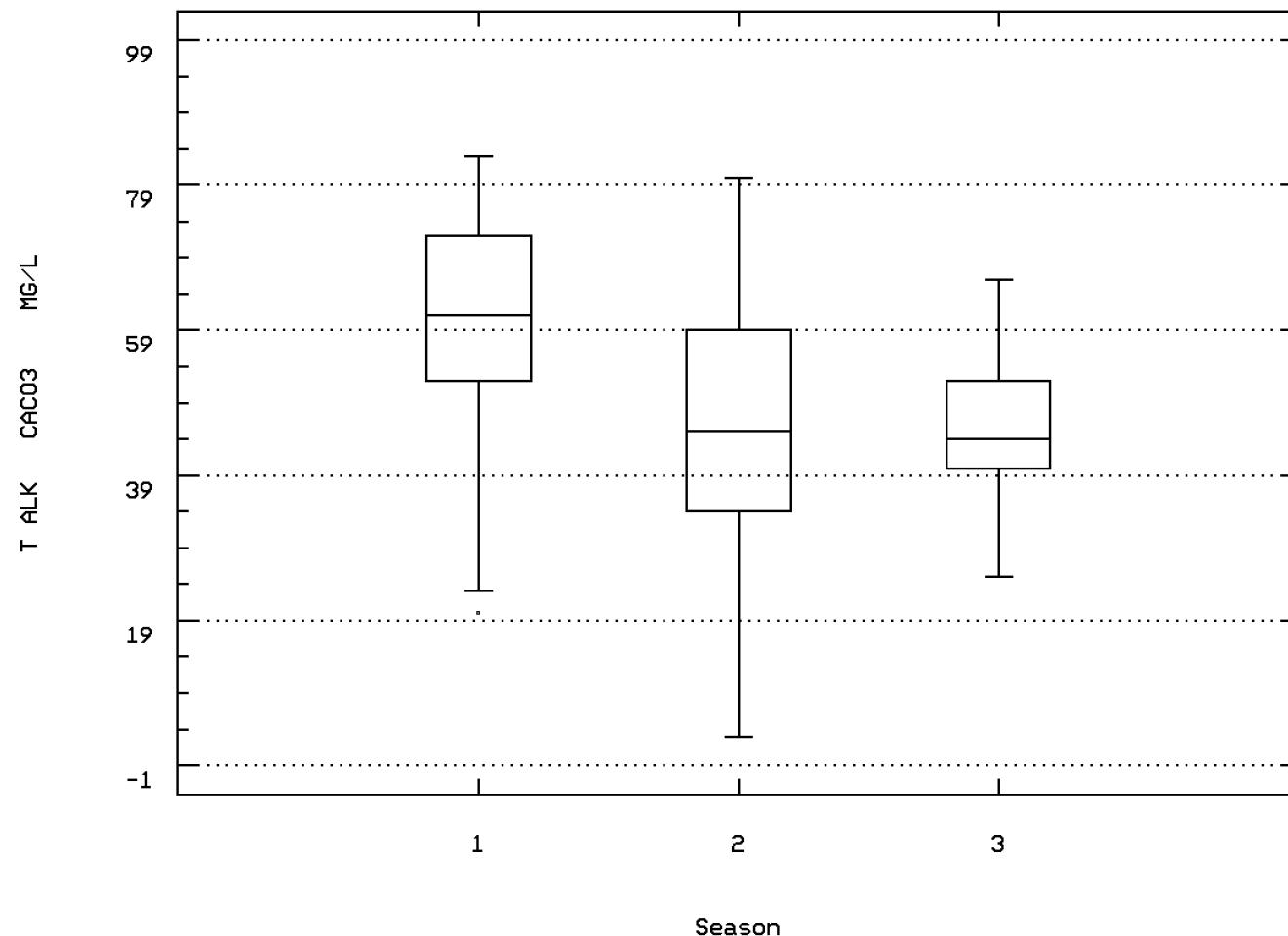
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RT. 360 BRIDGE

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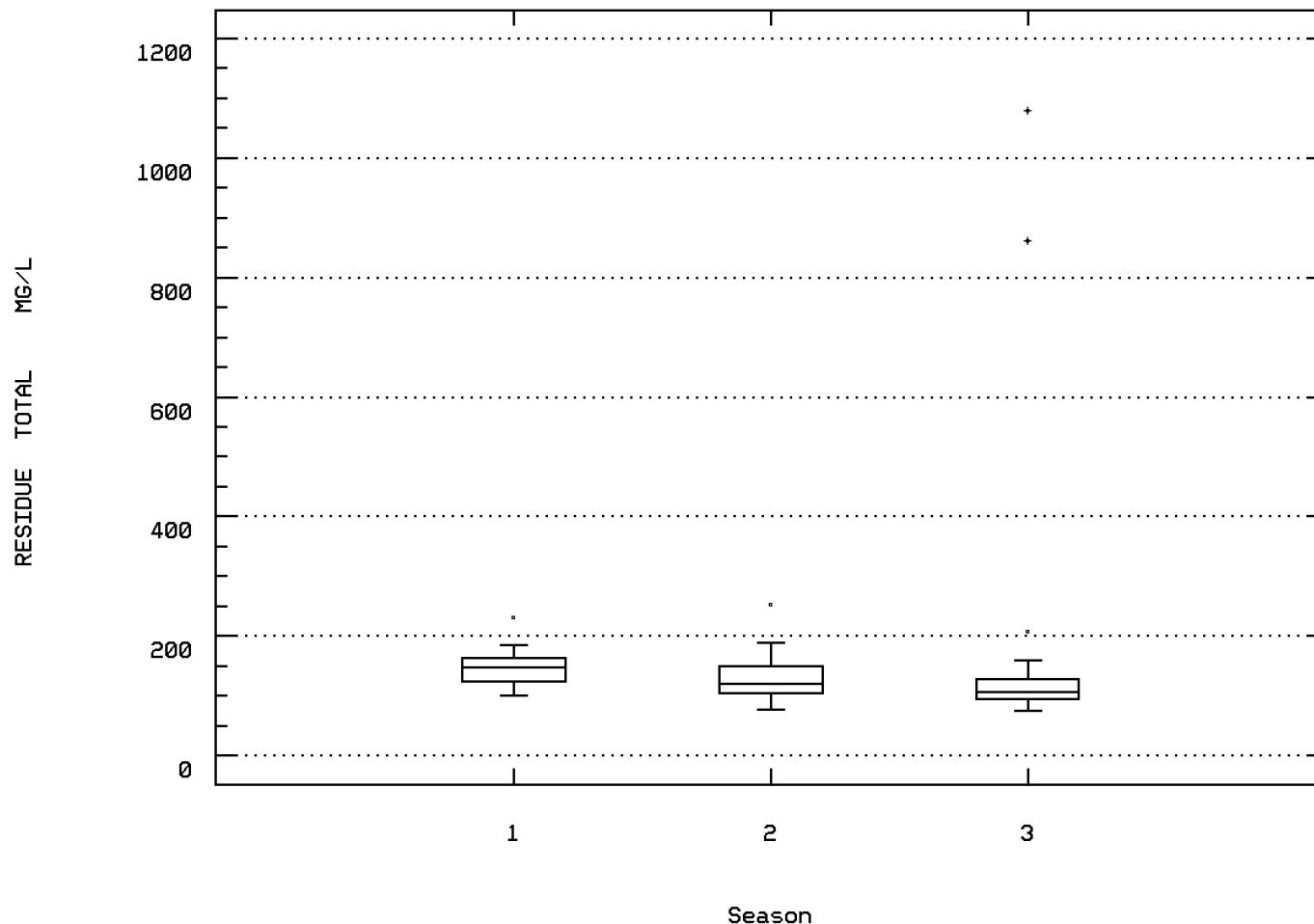
ALKALINITY, TOTAL (MG/L AS CACO<sub>3</sub>)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00500

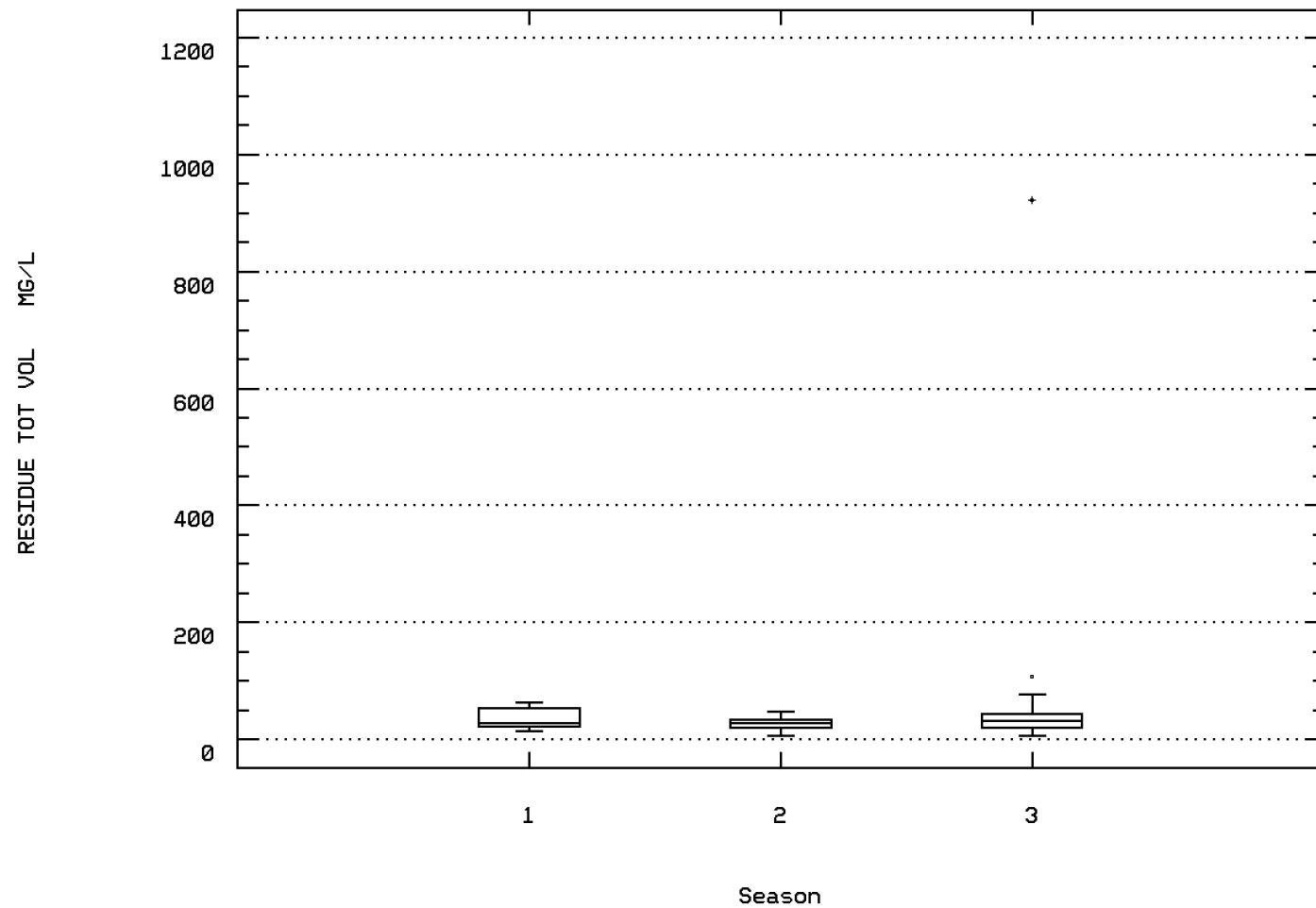
RESIDUE, TOTAL (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00505

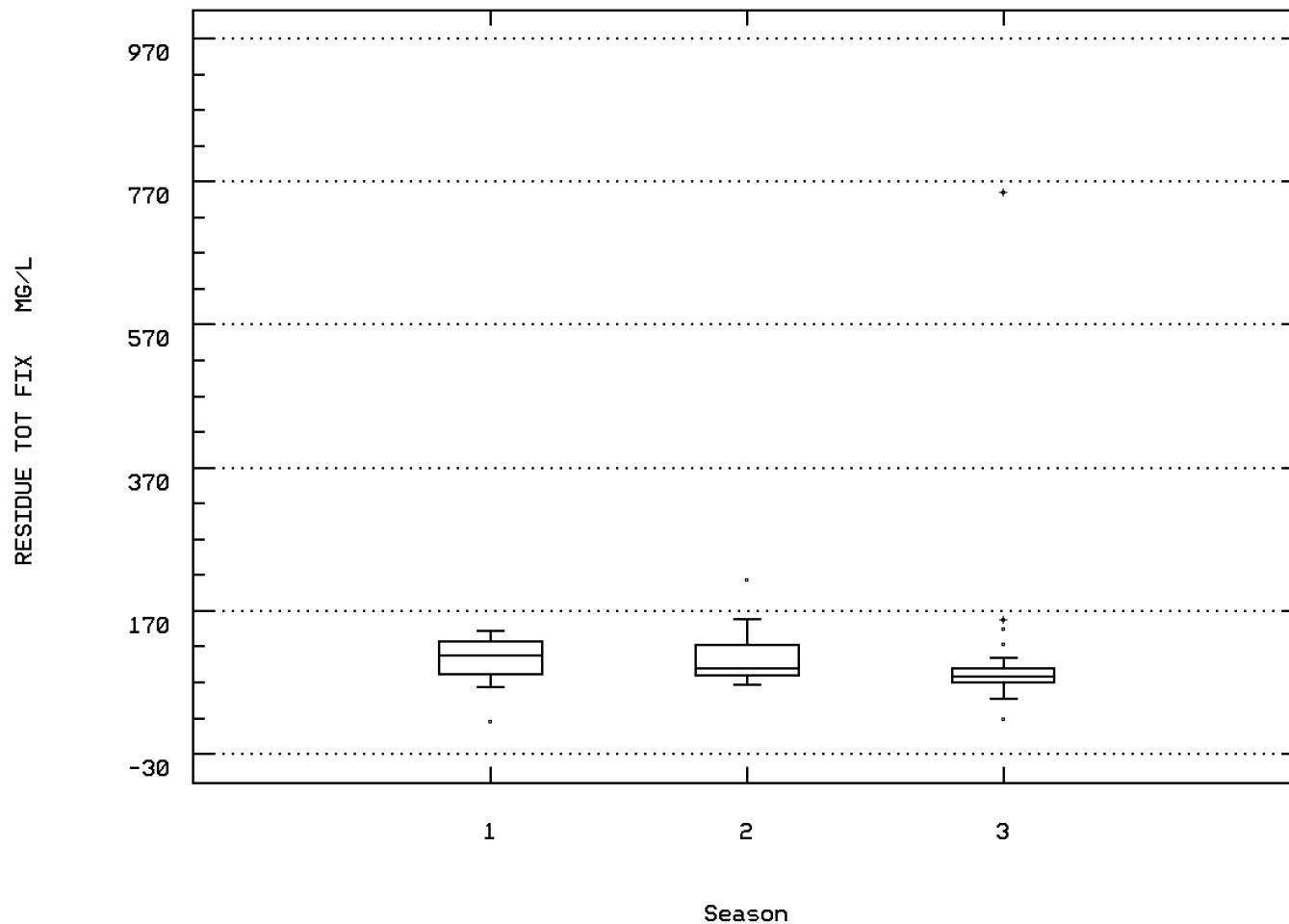
RESIDUE, TOTAL VOLATILE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00510

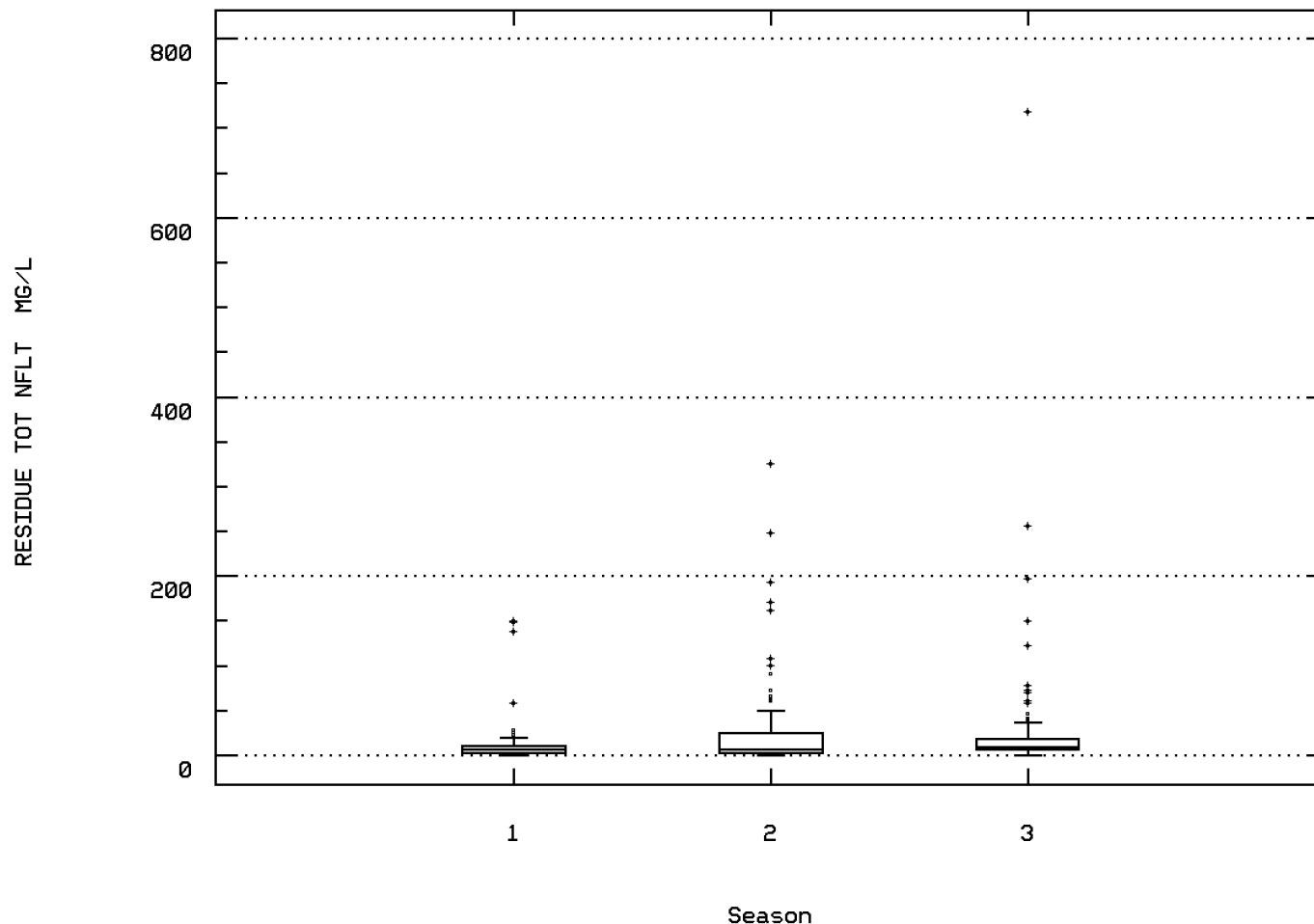
RESIDUE, TOTAL FIXED (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00530

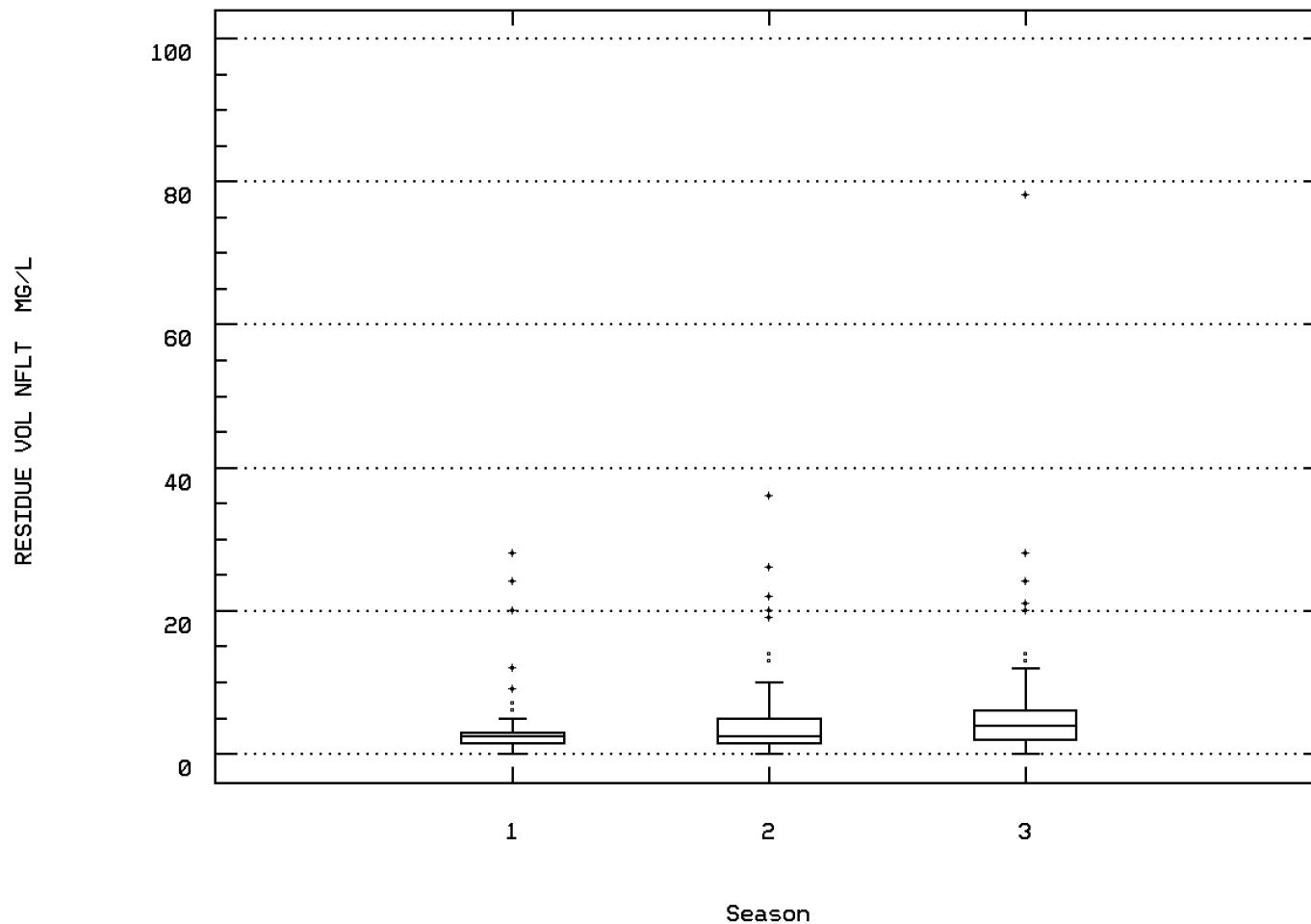
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00535

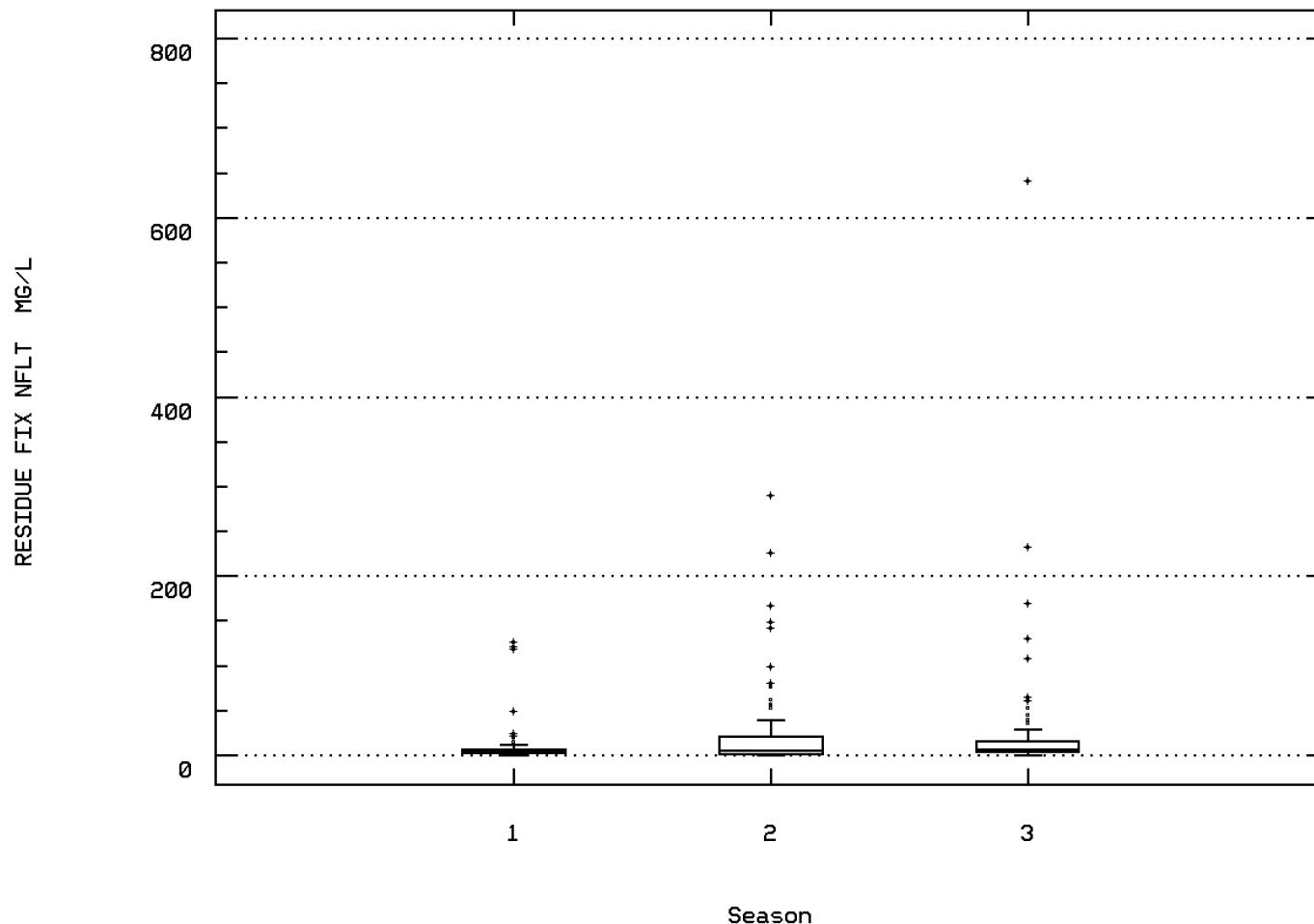
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00540

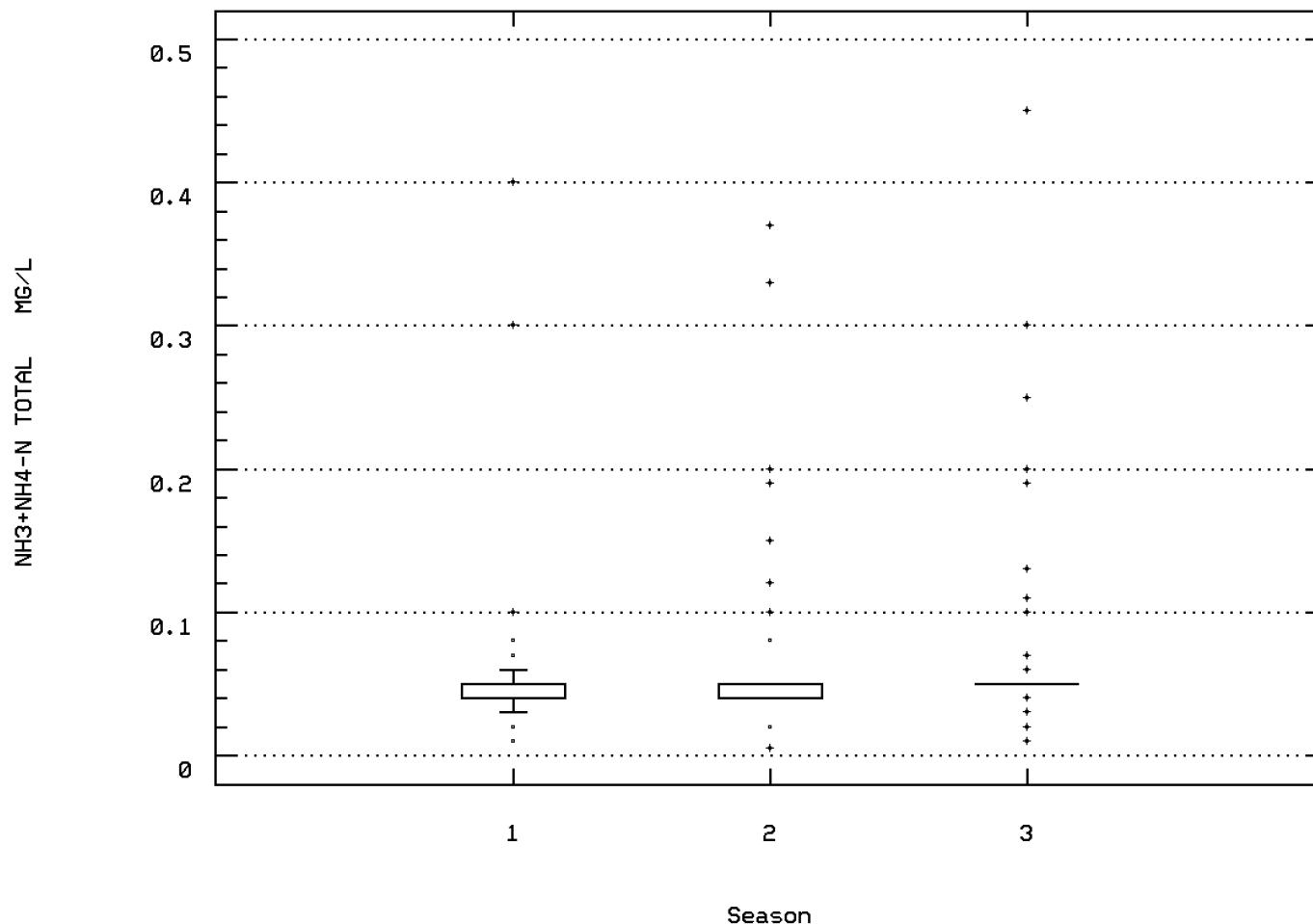
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00610

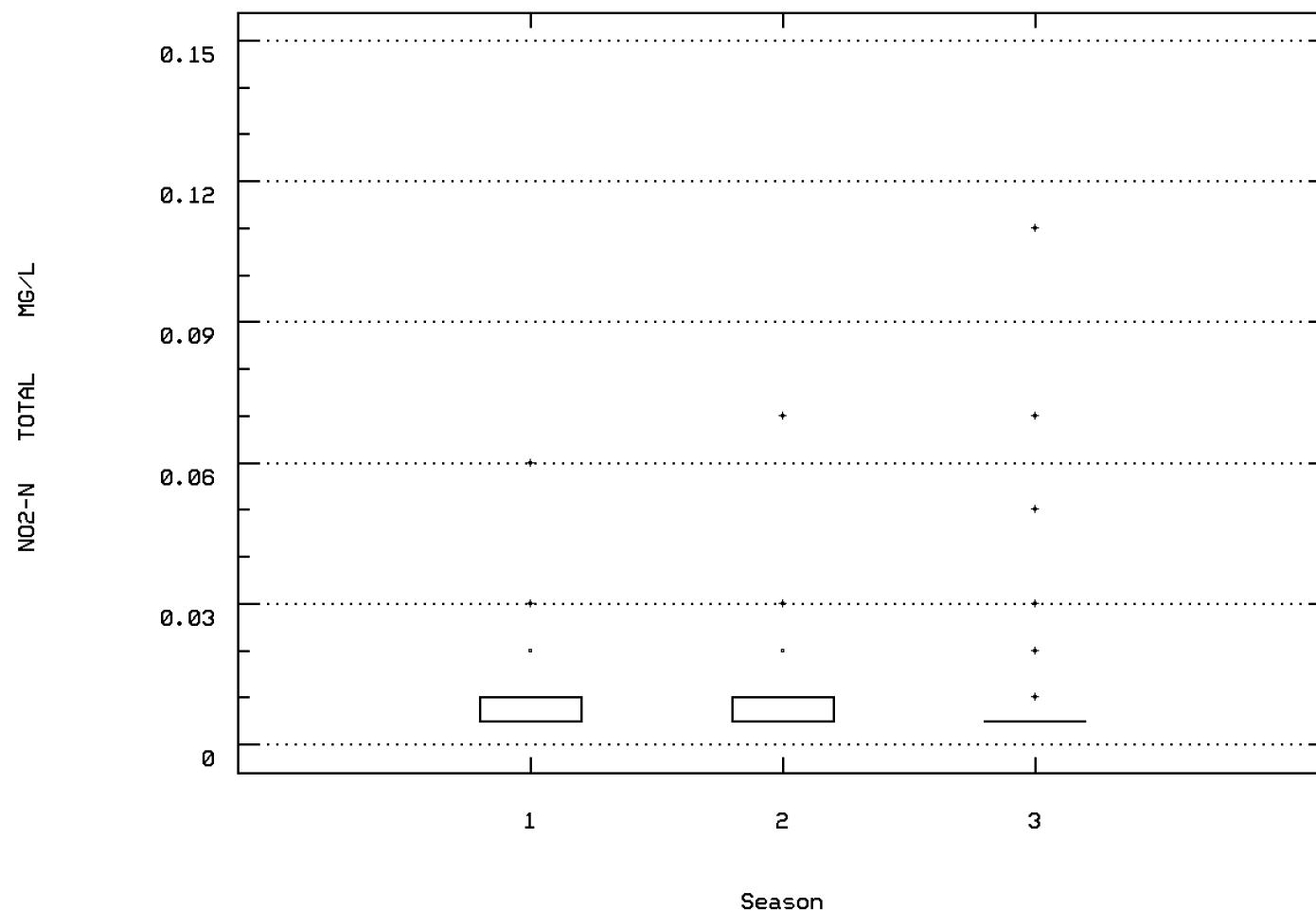
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00615

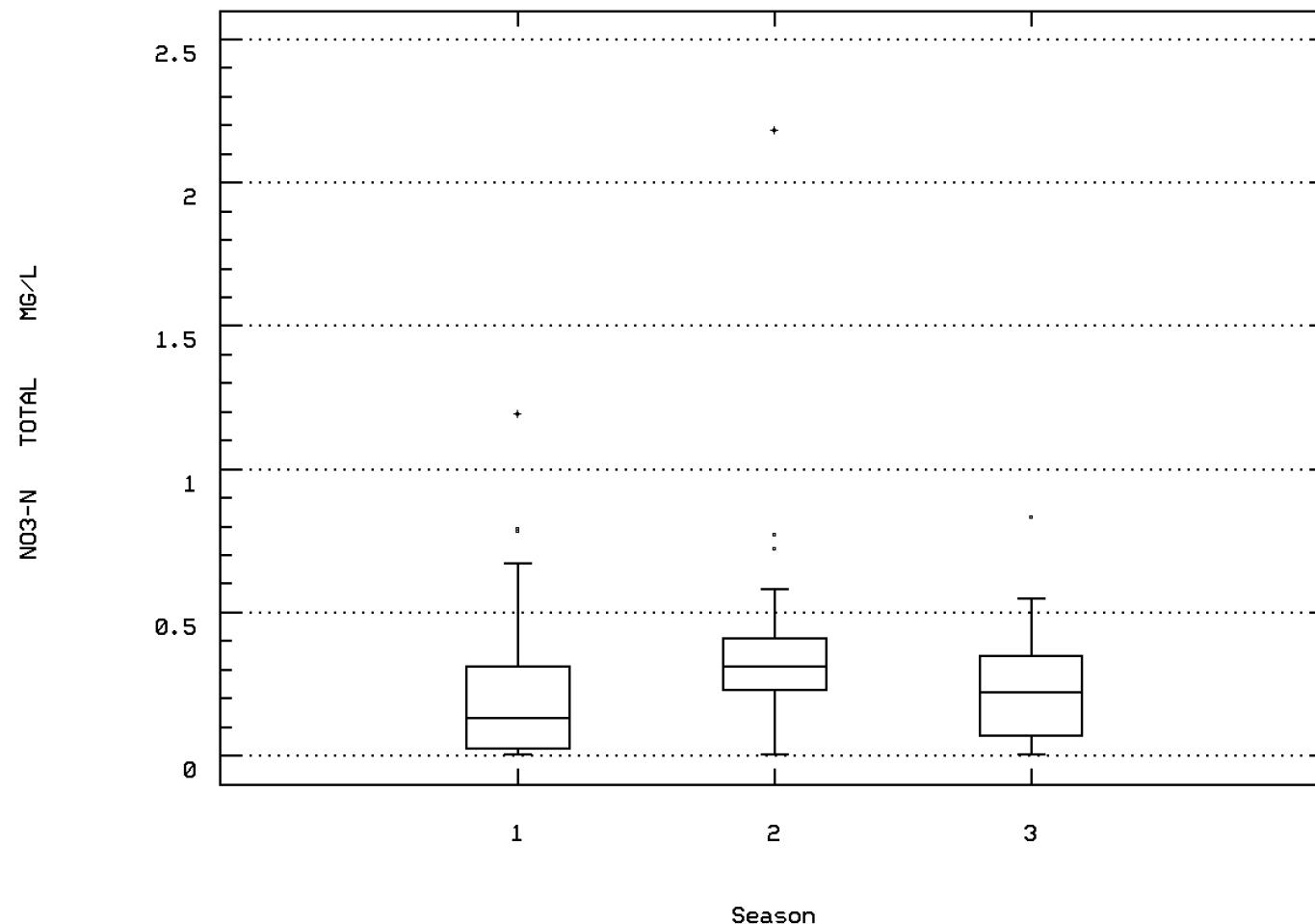
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00620

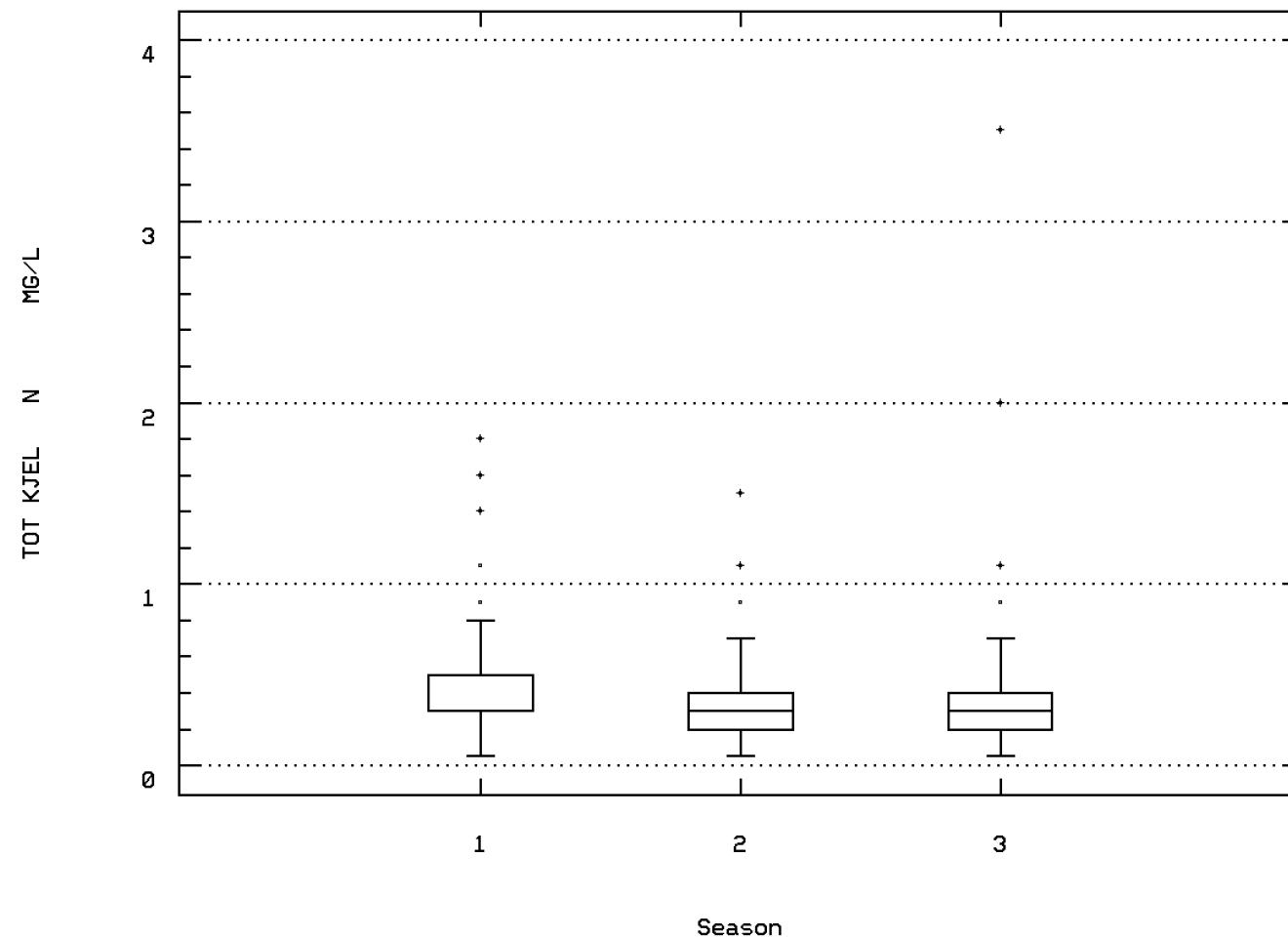
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00625

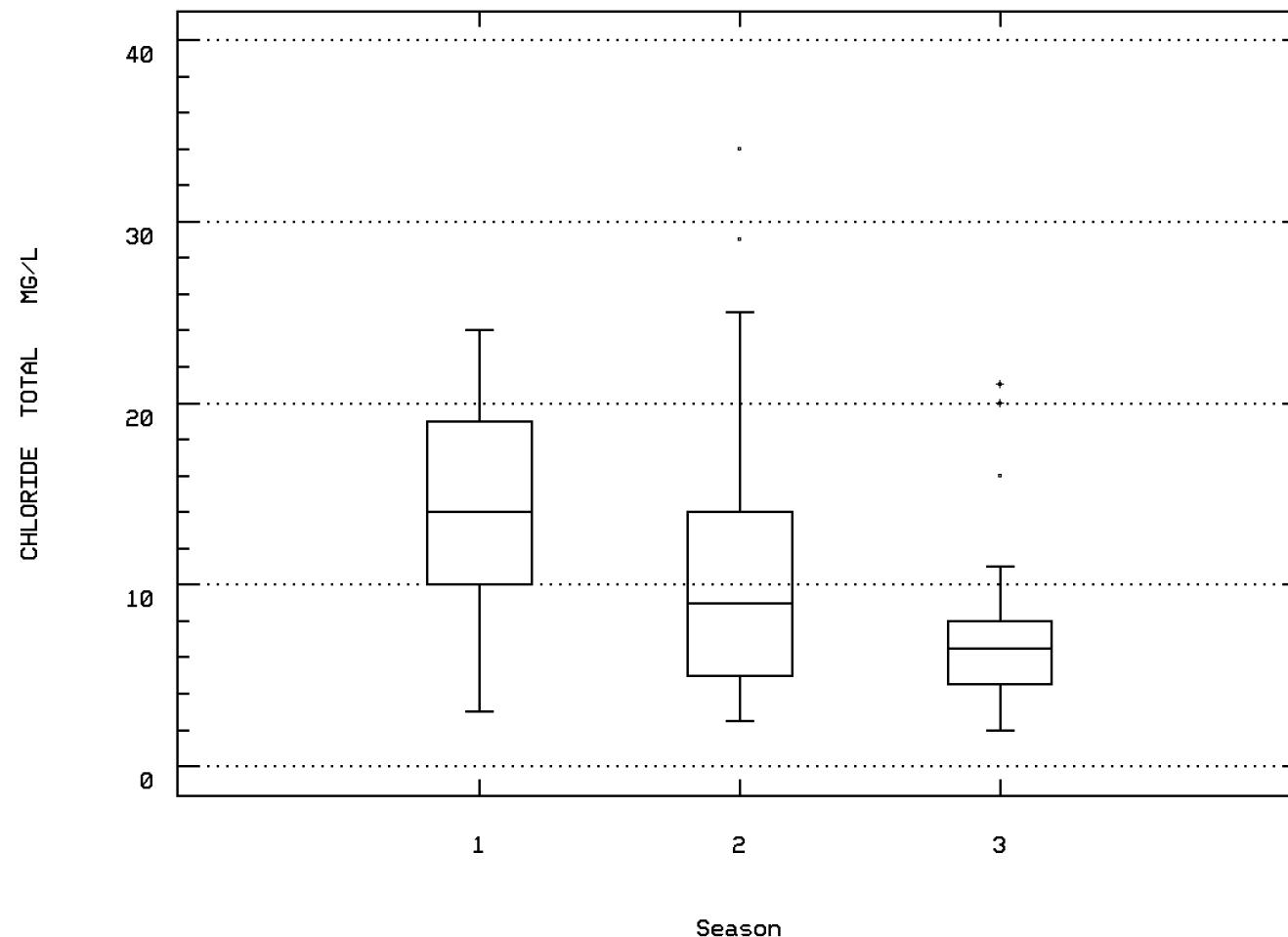
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00940

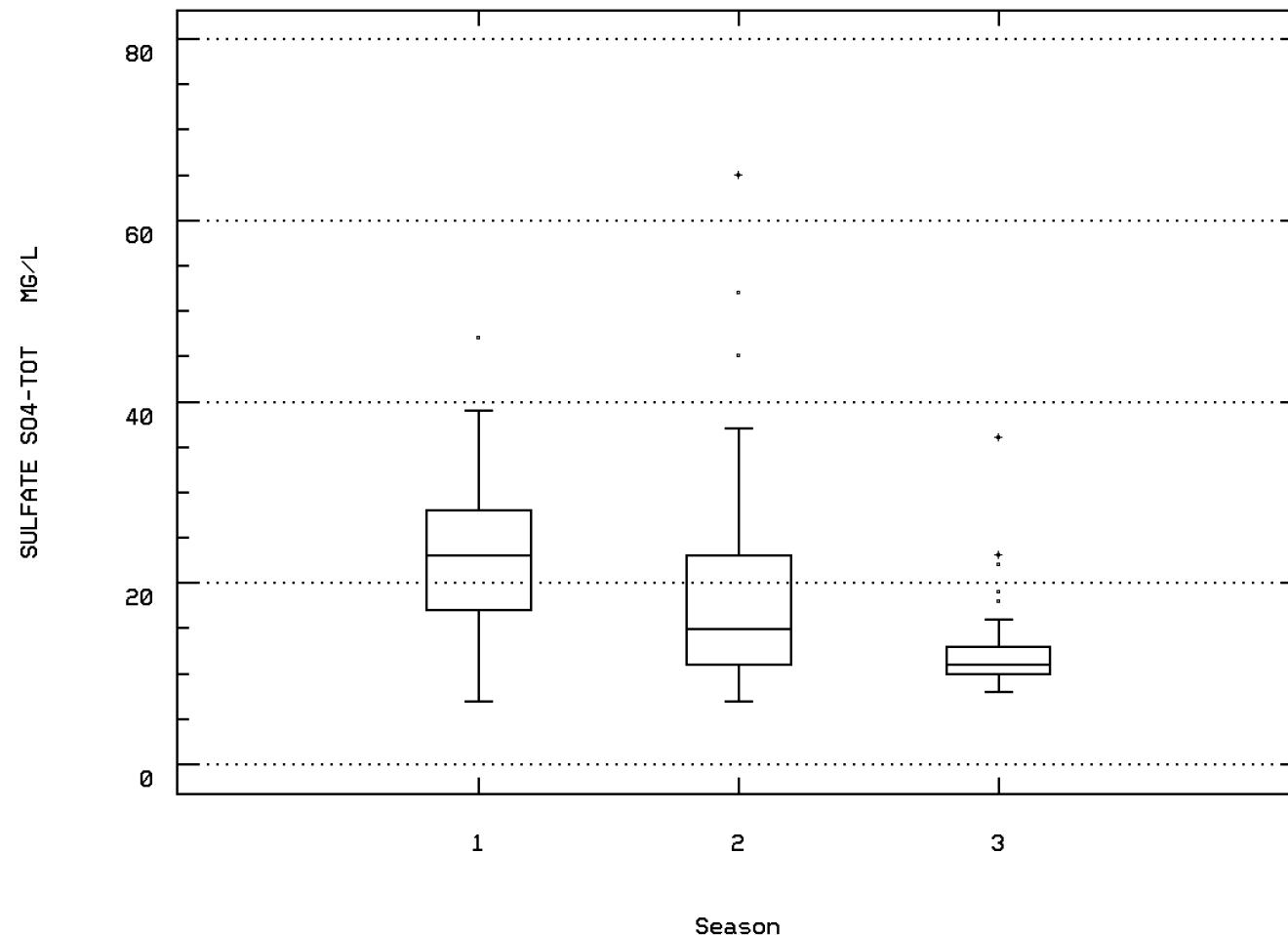
CHLORIDE, TOTAL IN WATER



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 00945

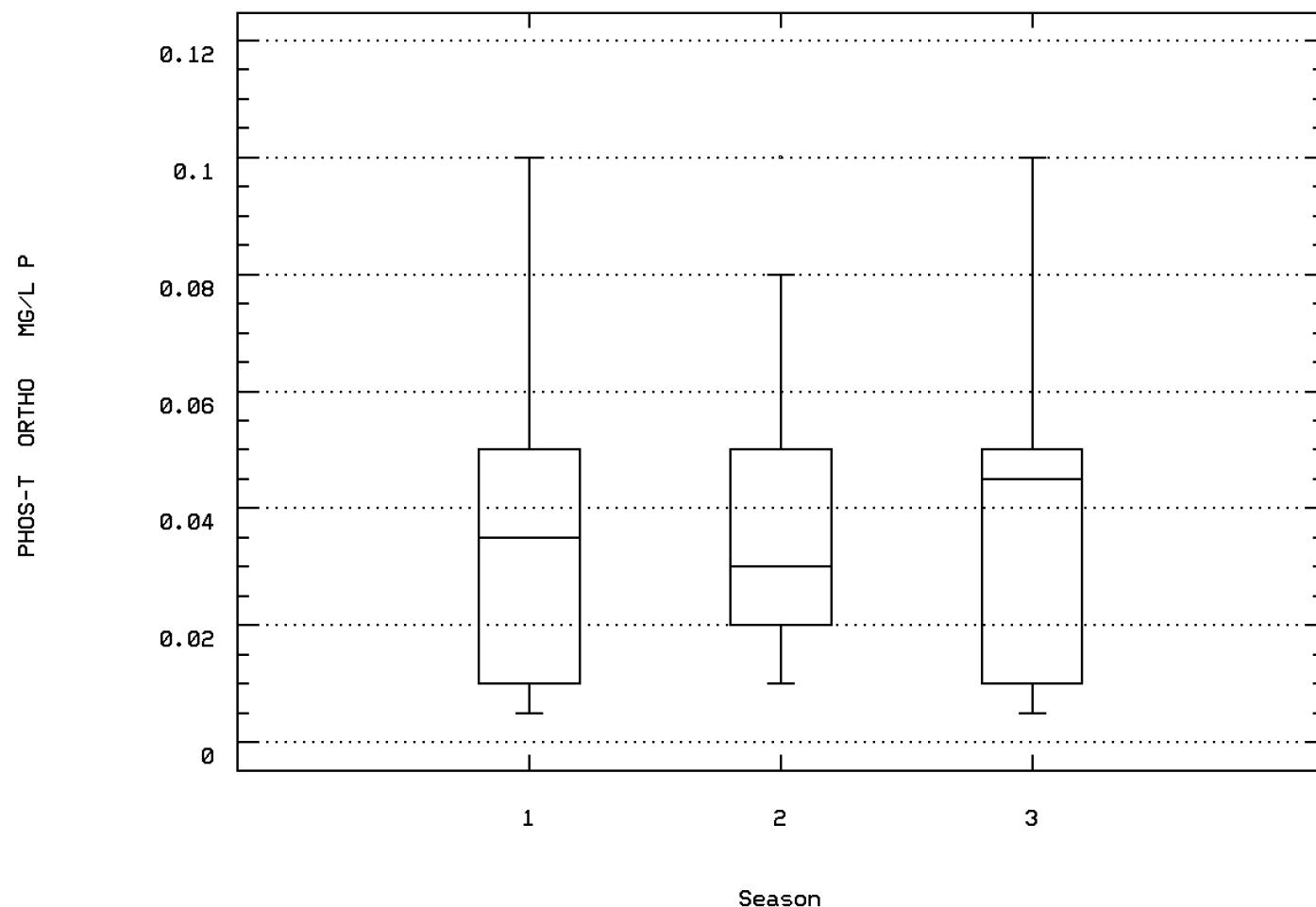
SULFATE, TOTAL (MG/L AS SO<sub>4</sub>)



RT. 360 BRIDGE

Station: RICH0116 Parameter Code: 70507

PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/



RT. 360 BRIDGE

## Station Inventory for Station: RICH0117

NPS Station ID: RICH0117	LAT/LON: 37.530560/ -77.433893	Date Created: 08/24/84
Location: MAYO'S BRIDGE JRWQMP STA.2 VIMS SLACK WATER STA.		
Station Type: /TYP/A/AMBNT/STREAM		
RMI-Indexes:		
RMI-Miles:		
HUC: 02080206	Depth of Water: 0	Aquifer:
Major Basin: NORTH ATLANTIC	Elevation: 0	Water Body Id:
Minor Basin: JAMES RIVER	RF1 Mile Point: 7.650	ECO Region:
RF1 Index: 02080206046	RF3 Mile Point: 2.59	Distance from RF1: 6.30
RF3 Index: 02080205000102.60		Distance from RF3: 0.30
Description:		On/Off RF1: ON On/Off RF3:

## Parameter Inventory for Station: RICH0117

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0118

NPS Station ID: RICH0118  
 Location: JAMES RIVER, MANCHERSTER BR. NEAR SOUTH BANK  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS110.90  
 Within Park Boundary: No

Date Created: 07/16/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0118

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-09/16/96	23	25.	23.643	31.1	14.8	23.173	4.814	15.88	21.5	27.5	30.2
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/14/94-06/01/95	12	3.55	5.125	11.5	1.2	11.697	3.42	1.44	2.4	8.05	10.78
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/28/94-09/16/96	18	200.5	213.167	332.	106.	4576.265	67.648	138.4	155.75	279.5	305.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/14/94-06/01/95	12	202.5	199.083	277.	134.	2604.629	51.036	135.2	144.5	240.25	274.
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	**	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-09/16/96	23	8.6	8.761	10.2	7.7	0.541	0.735	7.94	8.2	9.4	9.98
00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	13	1.2	1.462	3.3	0.5	0.834	0.913	0.5	0.5	2.1	3.06
00400	PH (STANDARD UNITS)	06/27/94-06/11/96	21	7.84	7.93	8.75	7.31	0.173	0.416	7.38	7.615	8.345	8.522
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-06/11/96	21	7.84	7.767	8.75	7.31	0.201	0.449	7.38	7.615	8.345	8.522
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-06/11/96	21	0.014	0.017	0.049	0.002	0.	0.014	0.003	0.005	0.024	0.042
00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	11	7.5	7.391	8.1	6.5	0.191	0.437	6.6	7.1	7.6	8.06
00403	CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	11	7.5	7.173	8.1	6.5	0.243	0.493	6.6	7.1	7.6	8.06
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	11	0.032	0.067	0.316	0.008	0.008	0.087	0.009	0.025	0.079	0.273
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	07/28/94-06/01/95	11	54.	53.727	71.	34.	153.818	12.402	34.8	41.	65.	69.8
00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	11	130.	138.909	186.	106.	688.491	26.239	108.	116.	160.	185.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	11	34.	34.364	58.	13.	245.055	15.654	13.4	17.	48.	56.4
00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	11	93.	104.545	164.	66.	1064.273	32.623	66.8	72.	128.	158.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/14/94-06/01/95	12	5.5	6.25	16.	1.5	18.159	4.261	1.5	3.25	9.25	14.5
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/14/94-06/01/95	12##	1.5	1.708	3.	1.	0.248	0.498	1.15	1.5	2.	2.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/14/94-06/01/95	12	4.	4.875	13.	1.5	12.506	3.536	1.5	1.875	7.5	11.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	12##	0.02	0.028	0.06	0.02	0.	0.015	0.02	0.02	0.043	0.057
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11##	0.005	0.014	0.03	0.005	0.	0.011	0.005	0.005	0.03	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11	0.06	0.129	0.33	0.02	0.015	0.122	0.02	0.02	0.22	0.328
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	11	0.3	0.309	0.5	0.2	0.009	0.094	0.2	0.2	0.4	0.48
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	11	0.07	0.08	0.14	0.04	0.001	0.03	0.042	0.06	0.1	0.134
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/14/94-07/14/94	1	4.3	4.3	4.3	4.3	0.	0.	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	11	14.	14.182	22.	6.	28.964	5.382	6.2	10.	18.	22.
00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	11	22.	21.727	35.	12.	76.218	8.73	12.	12.	28.	34.8
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	55	410.	2366.309	16000.	9.	19415579.588	4406.311	35.	78.	1700.	9200.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	55	2.613	2.645	4.204	0.954	0.775	0.88	1.512	1.892	3.23	3.964
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	441.78								
70507	PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	11	0.05	0.062	0.11	0.04	0.001	0.023	0.04	0.04	0.08	0.106

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0118

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	23	0	0.00	15	0	0.00	2	0	0.00	6	0	0.00
00400 PH	Fresh Chronic	9.	21	0	0.00	14	0	0.00	2	0	0.00	5	0	0.00
	Other-Lo Lim.	6.5	21	0	0.00	14	0	0.00	2	0	0.00	5	0	0.00
00403 PH, LAB	Fresh Chronic	9.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
	Other-Lo Lim.	6.5	11	1	0.09	7	1	0.14	1	0	0.00	3	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
	Drinking Water	250.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	55	37	0.67	34	24	0.71	5	4	0.80	16	9	0.56

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0118

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	395.	3363.7	16000.	9.	30632947.567	5534.704	10.1	56.	7475.	15320.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	2.591	2.617	4.204	0.954	1.236	1.112	0.989	1.7	3.87	4.18
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	414.012								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0118

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	1500.	2136.5	5400.	45.	4209278.056	2051.653	64.5	427.5	3975.	5400.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	3.172	3.021	3.732	1.653	0.447	0.668	1.726	2.613	3.591	3.732
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1050.563								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0118

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	560.	3388.75	16000.	45.	35661664.205	5971.739	64.5	180.	3050.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	2.708	2.883	4.204	1.653	0.666	0.816	1.77	2.215	3.466	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	763.045								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0118

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	220.	1408.545	9200.	9.	7469435.073	2733.027	11.2	45.	1400.	7920.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2.342	2.379	3.964	0.954	0.896	0.947	1.024	1.653	3.146	3.86
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	239.468								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0118

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	270.	1582.167	16000.	20.	20672636.515	4546.717	27.5	53.25	490.	11437.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	2.427	2.362	4.204	1.301	0.595	0.772	1.407	1.713	2.69	3.812
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	229.952								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0119

NPS Station ID: RICH0119  
 Location: JAMES RIVER,MAYOS BR., NORTH CHANNEL US SHOCKOE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS110.31  
 Within Park Boundary: No

Date Created: 07/16/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0119

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	55	24.9	23.984	30.7	15.	19.993	4.471	16.42	21.6	27.6	29.34
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	13	6.	8.1	30.	1.6	59.213	7.695	1.76	2.65	11.8	23.2
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	50	198.	214.68	363.	107.	3880.998	62.298	139.3	170.	267.5	301.7
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	13	193.	190.769	277.	130.	2563.359	50.63	130.	144.5	233.5	268.6
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	55	8.7	8.836	10.9	6.6	1.025	1.013	7.76	8.1	9.4	10.48
00310 BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	14	2.2	2.671	6.2	0.5	3.647	1.91	0.5	1.1	3.775	6.1
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	55	8.14	8.053	8.7	7.34	0.143	0.378	7.512	7.66	8.32	8.544
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	55	8.14	7.897	8.7	7.34	0.168	0.41	7.512	7.66	8.32	8.544
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	55	0.007	0.013	0.046	0.002	0.	0.011	0.003	0.005	0.022	0.031
00403 PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	11	7.3	7.291	8.1	6.5	0.219	0.468	6.56	6.9	7.5	8.06
00403 CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	11	7.3	7.079	8.1	6.5	0.268	0.518	6.56	6.9	7.5	8.06
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	11	0.05	0.083	0.316	0.008	0.008	0.09	0.009	0.032	0.126	0.285
00410 ALKALINITY, TOTAL (MG/L AS CaCO3)	07/28/94-06/01/95	11	52.	51.727	71.	32.	167.218	12.931	32.8	39.	64.	70.2
00500 RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	11	131.	128.727	174.	67.	1294.018	35.972	70.6	101.	166.	173.2
00505 RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	11	26.	30.318	62.	2.5	381.414	19.53	3.6	16.	51.	60.8
00510 RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	11	108.	98.636	142.	42.	917.855	30.296	46.4	69.	115.	140.2
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	13	8.	11.615	45.	3.	121.59	11.027	3.8	5.	13.	35.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	13	2.	2.5	7.	1.	2.583	1.607	1.2	1.5	3.	5.8
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	13	5.	8.923	38.	1.5	95.035	9.749	1.5	3.5	10.5	29.6
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	12	0.045	0.079	0.27	0.02	0.008	0.091	0.02	0.02	0.098	0.267
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11##	0.005	0.012	0.03	0.005	0.	0.011	0.005	0.005	0.03	0.03
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11	0.11	0.162	0.34	0.02	0.013	0.113	0.02	0.09	0.27	0.336
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	11	0.3	0.464	1.1	0.2	0.081	0.284	0.22	0.3	0.5	1.06
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	11	0.11	0.141	0.6	0.06	0.024	0.154	0.06	0.07	0.12	0.504
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	2	5.35	5.35	6.6	4.1	3.125	1.768	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	11	14.	13.545	22.	6.	29.673	5.447	6.2	8.	18.	21.8
00945 SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	11	20.	21.	34.	11.	76.6	8.752	11.	12.	30.	33.8
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	55	790.	4920.436	16000.	9.	41564905.065	6447.085	35.	170.	9200.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	55	2.898	2.972	4.204	0.954	1.006	1.003	1.512	2.23	3.964	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	937.074								
70507 PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	11	0.06	0.108	0.57	0.04	0.024	0.154	0.04	0.05	0.09	0.474

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0119

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	13	0	0.00	9	0	0.00	1	0	0.00	3	0	0.00
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	55	0	0.00	34	0	0.00	5	0	0.00	16	0	0.00
00400 PH	Fresh Chronic	9.	55	0	0.00	34	0	0.00	5	0	0.00	16	0	0.00
	Other-Lo Lim.	6.5	55	0	0.00	34	0	0.00	5	0	0.00	16	0	0.00
00403 PH, LAB	Fresh Chronic	9.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
	Other-Lo Lim.	6.5	11	1	0.09	7	1	0.14	1	0	0.00	3	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
	Drinking Water	250.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	55	40	0.73	35	28	0.80	4	1	0.25	16	11	0.69

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0119

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	11	25.6	24.682	30.7	16.9	21.376	4.623	16.94	21.6	27.8	30.38
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	7	232.	235.143	318.	171.	3808.81	61.716	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	11	8.1	8.545	10.9	6.7	1.749	1.322	6.86	7.8	9.2	10.9
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.85	7.962	8.54	7.44	0.145	0.381	7.456	7.66	8.31	8.496
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.85	7.824	8.54	7.44	0.166	0.407	7.456	7.66	8.31	8.496
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	11	0.014	0.015	0.036	0.003	0.	0.011	0.003	0.005	0.022	0.035
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	4395.	6698.8	16000.	9.	52111694.178	7218.843	9.	369.75	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	3.4	3.067	4.204	0.954	1.625	1.275	0.954	2.256	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1165.666								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0119

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	23.65	23.73	30.7	15.	27.553	5.249	15.13	20.8	28.275	30.69
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	9	221.	207.778	302.	107.	5351.944	73.157	107.	133.5	277.5	302.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.8	8.78	10.1	7.7	0.668	0.818	7.71	7.875	9.35	10.07
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	8.03	7.947	8.34	7.48	0.108	0.328	7.491	7.628	8.282	8.338
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	8.024	7.839	8.34	7.48	0.121	0.348	7.491	7.627	8.282	8.338
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.009	0.015	0.033	0.005	0.	0.01	0.005	0.005	0.024	0.032
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	900.	4776.	16000.	110.	42556604.444	6523.542	116.	410.	10900.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	2.943	3.145	4.204	2.041	0.627	0.792	2.06	2.575	4.024	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1397.919								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0119

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	21.85	22.492	27.5	15.5	17.057	4.13	15.8	19.275	26.425	27.44
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	12	186.	184.5	233.	142.	771.182	27.77	145.6	156.	205.75	227.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	9.1	8.983	10.8	6.6	1.258	1.122	7.02	8.225	9.7	10.62
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.67	7.801	8.55	7.34	0.13	0.36	7.385	7.528	8.108	8.463
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.67	7.692	8.55	7.34	0.142	0.377	7.385	7.528	8.108	8.463
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.021	0.02	0.046	0.003	0.	0.013	0.004	0.008	0.03	0.042
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	1200.	5507.25	16000.	9.	47373557.659	6882.845	29.7	250.	14300.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	3.078	3.069	4.204	0.954	1.088	1.043	1.236	2.394	4.144	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1171.76								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0119

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	22.4	23.69	30.	15.3	21.354	4.621	15.75	21.	28.225	29.83
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	10	200.	234.2	363.	183.	3643.289	60.36	183.2	189.5	276.	355.5
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.95	9.06	10.6	8.	0.847	0.92	8.02	8.275	9.95	10.58
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	8.2	8.2	8.7	7.57	0.141	0.375	7.593	7.989	8.577	8.699
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	8.2	8.057	8.7	7.57	0.163	0.404	7.593	7.897	8.577	8.699
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.006	0.009	0.027	0.002	0.	0.008	0.002	0.003	0.013	0.026
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	460.	4658.182	16000.	20.	39973456.364	6322.457	20.	140.	9200.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2.663	2.892	4.204	1.301	1.197	1.094	1.301	2.146	3.964	4.204

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0119

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			779.242								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0119

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	25.7	25.292	29.4	16.2	16.724	4.09	17.19	23.525	28.775	29.37
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	07/13/94-10/26/98	12	224.	221.833	339.	109.	5864.879	76.582	118.	154.	285.75	332.4
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	8.75	8.817	10.9	7.7	0.789	0.888	7.76	8.1	9.15	10.57
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	12	8.365	8.357	8.62	8.13	0.028	0.168	8.133	8.192	8.49	8.605
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	8.363	8.328	8.62	8.13	0.029	0.17	8.133	8.192	8.49	8.605
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.004	0.005	0.007	0.002	0.	0.002	0.002	0.003	0.006	0.007
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	410.	3212.417	16000.	45.	36355942.447	6029.589	51.9	78.	2525.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	2.604	2.724	4.204	1.653	0.8	0.895	1.707	1.892	3.393	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			530.125								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0120

NPS Station ID: RICH0120  
 Location: BOULEVARD BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205001  
 RF3 Index: 02080205009600.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.531420/ -77.483699

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS113.20 /VA2-08-X0143/VA2-4X0143  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 2.230  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.40  
 Distance from RF3: 0.01

On/Off RF1: ON  
 On/Off RF3:

### Parameter Inventory for Station: RICH0120

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	97	16.1	16.119	30.6	1.2	73.68	8.584	3.98	9.2	24.4	27.8
00070 TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-07/08/71	4	6.	6.5	11.	3.	13.667	3.697	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	98	9.7	10.07	19.9	7.	4.81	2.193	7.89	8.2	11.4	13.02
00310 BOD, 5 DAY, 20 DEG C MG/L	10/07/68-04/18/73	8	1.85	2.088	3.3	1.	0.684	0.827	**	**	**	**
00400 PH (STANDARD UNITS)	06/18/68-06/07/79	97	7.8	7.805	9.5	6.5	0.454	0.674	7.	7.25	8.25	8.82
00400 CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	97	7.8	7.409	9.5	6.5	0.613	0.783	7.	7.25	8.25	8.82
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	97	0.016	0.039	0.316	0.	0.003	0.052	0.002	0.006	0.057	0.1
00403 PH, LAB, STANDARD UNITS SU	10/07/68-04/25/78	8	7.3	7.288	7.7	6.7	0.124	0.352	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	10/07/68-04/25/78	8	7.3	7.156	7.7	6.7	0.144	0.379	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/07/68-04/25/78	8	0.05	0.07	0.2	0.02	0.004	0.062	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	10/07/68-04/25/78	8	33.5	36.25	51.	21.	103.071	10.152	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	10/07/68-06/02/74	8	160.5	155.5	211.	104.	1124.857	33.539	**	**	**	**
00505 RESIDUE, TOTAL VOLATILE (MG/L)	10/07/68-06/02/74	8	49.	57.25	101.	17.	928.214	30.467	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/02/74	6	77.5	81.167	105.	66.	196.567	14.02	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/02/74	6	26.	25.167	44.	9.	165.767	12.875	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10/07/68-06/02/74	8	6.5	6.5	12.	1.	11.714	3.423	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/02/74	6	20.5	17.667	32.	2.	117.867	10.857	**	**	**	**
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	83 ##	0.05	0.114	3.05	0.005	0.112	0.335	0.05	0.05	0.09	0.154
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	84 ##	0.005	0.009	0.04	0.005	0.	0.007	0.005	0.005	0.01	0.02
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	68	0.34	0.377	1.089	0.01	0.066	0.256	0.058	0.213	0.48	0.807
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	84	0.3	0.324	1.299	0.05	0.06	0.244	0.1	0.125	0.4	0.6
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/15/77-06/07/79	16	0.235	0.229	0.6	0.025	0.034	0.185	0.025	0.025	0.38	0.46
01002 ARSENIC, TOTAL (UG/L AS AS)	03/15/71-11/01/78	11 ##	1.5	1.727	2.5	1.	0.568	0.754	1.	1.	2.5	2.5
01027 CADMIUM, TOTAL (UG/L AS CD)	04/28/71-11/01/78	11 ##	5.	5.	5.	0.	0.	5.	5.	5.	5.	5.
01034 CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/01/78	19 ##	5.	7.895	20.	5.	23.099	4.806	5.	5.	10.	20.
01042 COPPER, TOTAL (UG/L AS CU)	03/24/70-11/01/78	19 ##	5.	9.737	40.	5.	95.76	9.786	5.	5.	10.	30.
01045 IRON, TOTAL (UG/L AS FE)	04/28/71-11/01/78	2	450.	450.	700.	200.	125000.	353.553	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	03/15/71-11/01/78	19	5.	7.316	20.	1.	17.673	4.204	3.	5.	10.	12.
01055 MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/01/78	3	30.	36.667	60.	20.	433.333	20.817	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	01/24/73-11/01/78	9 ##	50.	35.	50.	5.	506.25	22.5	5.	5.	50.	50.
01092 ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/01/78	19	10.	16.053	60.	5.	193.275	13.902	5.	10.	20.	40.
31505 COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	06/18/68-07/09/70	10	2900	12938.1	93000	91.	810008296.1	28460.645	104.9	230	9725.	84800
31505 LOG COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 3150)	06/18/68-07/09/70	10	3.405	3.307	4.968	1.959	0.928	0.964	1.999	2.362	3.987	4.876

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31505	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506	GEOMETRIC MEAN =			2028.788								
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	81 ##	50.	448.765	8000.	50.	1842498.457	1357.387	50.	50.	100.	1000.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	81 ##	1.699	2.023	3.903	1.699	0.311	0.558	1.699	1.699	2.	3.
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			105.396								
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	05/13/71-06/27/71	2	0.009	0.009	0.01	0.008	0.	0.001	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	12/05/73-08/22/74	2	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	84 ##	0.05	0.074	1.1	0.025	0.016	0.126	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	83	0.03	0.038	0.58	0.005	0.004	0.064	0.005	0.01	0.05	0.05
71900	MERCURY, TOTAL (UG/L AS HG)	03/15/71-11/01/78	19 ##	0.25	0.263	0.6	0.15	0.007	0.085	0.25	0.25	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0120

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	4	0	0.00	1	0	0.00	36	0	0.00	33	0	0.00			
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	98	0	0.00	29	0	0.00	36	0	0.00	32	6	0.19			
00400	PH	Fresh Chronic	9.	97	8	0.08	29	2	0.07	36	0	0.00	32	0	0.00			
00403	PH, LAB	Other-Lo Lim.	6.5	97	1	0.01	29	0	0.00	36	1	0.03	32	0	0.00			
		Fresh Chronic	9.	8	0	0.00	2	0	0.00	1	0	0.00	5	0	0.00			
		Other-Lo Lim.	6.5	8	0	0.00	2	0	0.00	1	0	0.00	5	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	84	0	0.00	23	0	0.00	32	0	0.00	29	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	68	0	0.00	19	0	0.00	28	0	0.00	21	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	16	0	0.00	4	0	0.00	4	0	0.00	8	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	11	0	0.00	1	0	0.00	5	0	0.00	5	0	0.00			
		Drinking Water	50.	11	0	0.00	1	0	0.00	5	0	0.00	5	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	19	0	0.00	2	0	0.00	9	0	0.00	8	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	19	3	0.16	2	0	0.00	9	1	0.11	8	2	0.25			
		Drinking Water	1300.	19	0	0.00	2	0	0.00	9	0	0.00	8	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	19	0	0.00	2	0	0.00	10	0	0.00	7	0	0.00			
		Drinking Water	15.	19	1	0.05	2	0	0.00	10	1	0.10	7	0	0.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	9	0	0.00				5	0	0.00	4	0	0.00			
		Drinking Water	100.	9	0	0.00				5	0	0.00	4	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	19	0	0.00	2	0	0.00	9	0	0.00	8	0	0.00			
		Drinking Water	5000.	19	0	0.00	2	0	0.00	9	0	0.00	8	0	0.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	10	6	0.60	6	5	0.83	1	0	0.00	3	1	0.33			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	81	18	0.22	19	5	0.26	34	6	0.18	28	7	0.25			
39380	DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	2	0	0.00							2	0	0.00			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	2	0	0.00	1	0	0.00	1	0	0.00						
71900	MERCURY, TOTAL	Fresh Acute	2.4	19	0	0.00	2	0	0.00	10	0	0.00	7	0	0.00			
		Drinking Water	2.	19	0	0.00	2	0	0.00	10	0	0.00	7	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1968 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	5	26.1	25.68	30.6	16.7	31.037	5.571	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	5	8.	8.74	13.	7.2	5.788	2.406	**	**	**	**
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	5	8.	8.02	8.4	7.5	0.112	0.335	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	5	8.	7.907	8.4	7.5	0.128	0.358	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	5	0.01	0.012	0.032	0.004	0.	0.011	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	3	21.1	16.833	27.2	2.2	169.903	13.035	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	3	9.4	10.267	14.	7.4	11.453	3.384	**	**	**	**
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	3	7.4	7.467	7.7	7.3	0.043	0.208	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	3	7.4	7.436	7.7	7.3	0.045	0.211	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	3	0.04	0.037	0.05	0.02	0.	0.015	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	3	16.1	16.833	25.	9.4	61.243	7.826	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	3	9.	9.733	11.4	8.8	2.093	1.447	**	**	**	**
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	3	7.2	7.267	7.9	6.7	0.363	0.603	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	3	7.2	7.037	7.9	6.7	0.442	0.665	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	3	0.063	0.092	0.2	0.013	0.009	0.097	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	3	0.07	0.063	0.08	0.04	0.	0.021	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	3	0.02	0.015	0.02	0.005	0.	0.009	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	3	0.5	0.493	0.78	0.2	0.084	0.29	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	3	0.3	0.566	1.199	0.2	0.303	0.55	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	3 ##	0.025	0.05	0.1	0.025	0.002	0.043	**	**	**	**
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	3	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	12	20.85	18.8	28.9	3.9	91.029	9.541	4.41	9.	28.625	28.9
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	12	9.1	9.817	13.	8.	3.647	1.91	8.	8.1	11.7	12.94
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	12	7.65	7.775	9.	7.	0.56	0.748	7.	7.	8.5	8.85
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	12	7.625	7.358	9.	7.	0.75	0.866	7.	7.	8.5	8.85
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	12	0.024	0.044	0.1	0.001	0.002	0.045	0.002	0.003	0.1	0.1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	11	0.09	0.092	0.37	0.01	0.01	0.1	0.01	0.02	0.1	0.32
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	11	0.01	0.016	0.03	0.01	0.	0.008	0.01	0.01	0.02	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	11	0.54	0.611	0.98	0.27	0.053	0.23	0.294	0.49	0.87	0.972
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	10	0.45	0.4	0.5	0.2	0.016	0.125	0.2	0.275	0.5	0.5
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11	200.	1954.545	8000.	50.	10271727.273	3204.954	50.	50.	4000.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11	2.301	2.519	3.903	1.699	0.821	0.906	1.699	1.699	3.602	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			330.388								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	11 ##	0.05	0.164	1.1	0.05	0.099	0.314	0.05	0.05	0.1	0.92
70507	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	11	0.02	0.078	0.58	0.01	0.028	0.168	0.01	0.01	0.06	0.478

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	12	12.2	13.642	27.8	4.4	62.214	7.888	4.58	6.1	21.675	26.45
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	12	11.	10.817	14.6	8.	4.251	2.062	8.06	8.7	12.05	14.24
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	12	7.2	7.3	8.	6.5	0.233	0.482	6.59	6.925	7.775	8.
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	12	7.2	7.081	8.	6.5	0.285	0.534	6.59	6.925	7.775	8.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	12	0.063	0.083	0.316	0.01	0.008	0.087	0.01	0.017	0.119	0.269
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	9	0.08	0.125	0.48	0.005	0.02	0.142	0.005	0.04	0.15	0.48
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	10	0.01	0.016	0.04	0.005	0.	0.01	0.006	0.01	0.02	0.038
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	10	0.4	0.455	1.089	0.24	0.063	0.252	0.241	0.28	0.513	1.041
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	10	0.4	0.405	0.8	0.05	0.042	0.206	0.065	0.275	0.525	0.78
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11	100.	459.091	3200.	50.	889409.091	943.085	50.	50.	300.	2740.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11	2.	2.157	3.505	1.699	0.367	0.606	1.699	1.699	2.477	3.395
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			143.711								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	10	0.02	0.022	0.04	0.01	0.	0.01	0.01	0.01	0.03	0.039

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	8	11.4	12.775	28.9	3.3	67.422	8.211	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	8	11.1	10.95	13.2	8.2	3.014	1.736	**	**	**	**
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	8	7.25	7.35	8.2	6.7	0.249	0.499	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	8	7.247	7.152	8.2	6.7	0.293	0.541	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	8	0.057	0.07	0.2	0.006	0.004	0.063	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	8 ##	0.05	0.081	0.29	0.01	0.008	0.088	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	8 ##	0.005	0.007	0.01	0.005	0.	0.003	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	8	0.345	0.298	0.4	0.15	0.009	0.093	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	8	0.3	0.412	1.299	0.1	0.144	0.379	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	8 ##	50.	350.	1300.	50.	309285.714	556.135	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	8 ##	1.699	2.048	3.114	1.699	0.419	0.647	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			111.781								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	8 ##	0.05	0.106	0.5	0.05	0.025	0.159	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	8 ##	0.05	0.06	0.1	0.04	0.	0.022	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	11	17.8	16.618	27.8	6.7	52.17	7.223	6.8	10.	21.1	27.46
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	11	10.	10.2	15.	8.	4.088	2.022	8.04	8.8	11.	14.32
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	11	7.5	7.582	8.2	7.	0.152	0.389	7.	7.4	8.	8.16
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	11	7.5	7.43	8.2	7.	0.177	0.421	7.	7.4	8.	8.16
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	11	0.032	0.037	0.1	0.006	0.001	0.033	0.007	0.01	0.04	0.1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	11 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	11	0.27	0.323	1.	0.01	0.107	0.326	0.012	0.04	0.48	0.96
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	11	0.2	0.168	0.3	0.05	0.007	0.084	0.06	0.1	0.2	0.3
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11	100.	181.818	1000.	50.	78636.364	280.422	50.	50.	100.	860.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11	2.	2.025	3.	1.699	0.158	0.398	1.699	1.699	2.	2.895
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			105.881								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	11 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	11 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	10	15.25	16.76	24.4	8.9	39.383	6.276	8.95	11.5	24.4	24.4
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	11	9.4	9.664	13.3	7.	4.305	2.075	7.16	8.	11.6	13.16
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	10	7.5	7.61	8.8	7.	0.263	0.513	7.	7.375	7.775	8.72
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	10	7.5	7.417	8.8	7.	0.305	0.552	7.	7.375	7.775	8.72
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	10	0.032	0.038	0.1	0.002	0.001	0.034	0.002	0.017	0.049	0.1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	9 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	9	0.24	0.314	1.	0.08	0.076	0.275	0.08	0.155	0.365	1.
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	10	0.2	0.21	0.4	0.1	0.012	0.11	0.1	0.1	0.3	0.39
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	10 ##	50.	60.	100.	50.	444.444	21.082	50.	50.	62.5	100.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	10 ##	1.699	1.759	2.	1.699	0.016	0.127	1.699	1.699	1.774	2.
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	57.435								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	9 ##	0.05	0.041	0.07	0.005	0.	0.021	0.005	0.02	0.05	0.07

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	11	18.3	17.273	28.9	4.4	86.16	9.282	4.64	5.6	26.7	28.46
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	11	10.2	11.064	19.9	7.8	12.345	3.513	7.92	8.6	13.	18.68
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	11	8.	8.145	9.	7.	0.377	0.614	7.1	7.8	8.6	8.98
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	11	8.	7.753	9.	7.	0.546	0.739	7.1	7.8	8.6	8.98
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	11	0.01	0.018	0.1	0.001	0.001	0.029	0.001	0.003	0.016	0.086
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	12 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	12	0.28	0.261	0.47	0.025	0.025	0.157	0.025	0.133	0.41	0.455
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	12	0.15	0.292	0.7	0.05	0.068	0.26	0.05	0.1	0.575	0.7
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11 ##	50.	54.545	100.	50.	227.273	15.076	50.	50.	50.	90.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	11 ##	1.699	1.726	2.	1.699	0.008	0.091	1.699	1.699	1.699	1.94
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	53.252								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	11 ##	0.05	0.068	0.2	0.05	0.002	0.046	0.05	0.05	0.05	0.18
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	11	0.02	0.022	0.04	0.005	0.	0.014	0.006	0.01	0.04	0.04

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	9	4.	9.911	26.	1.2	99.394	9.97	1.2	2.4	19.	26.
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	9	8.1	9.289	13.5	7.4	3.944	1.986	7.4	7.95	10.55	13.5
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	9	8.5	8.533	9.5	7.8	0.31	0.557	7.8	8.	9.	9.5
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	9	8.5	8.276	9.5	7.8	0.384	0.62	7.8	8.	9.	9.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/18/68-06/07/79	9	0.003	0.005	0.016	0.	0.	0.005	0.	0.001	0.01	0.016
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	8 ##	0.075	0.494	3.05	0.05	1.079	1.039	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	8 ##	0.005	0.008	0.02	0.005	0.	0.005	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	4	0.28	0.249	0.41	0.025	0.028	0.166	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	8	0.35	0.425	1.	0.1	0.108	0.328	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	7 ##	50.	92.857	200.	50.	5357.143	73.193	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	7 ##	1.699	1.871	2.301	1.699	0.086	0.294	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	74.3								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	8 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	8	0.02	0.019	0.04	0.005	0.	0.013	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	9	18.	17.778	29.5	3.	58.007	7.616	3.	14.	23.5	29.5
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	9	9.7	9.189	11.2	7.	2.014	1.419	7.	7.65	10.	11.2
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	9	8.5	8.478	9.5	7.8	0.342	0.585	7.8	8.	9.	9.5
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	9	8.5	8.218	9.5	7.8	0.418	0.646	7.8	8.	9.	9.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	06/18/68-06/07/79	9	0.003	0.006	0.016	0.	0.	0.006	0.	0.001	0.01	0.016
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	8 ##	0.05	0.075	0.2	0.05	0.003	0.053	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	8 ##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	8	0.35	0.35	0.6	0.2	0.017	0.131	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	8 ##	50.	243.75	1500.	50.	258169.643	508.104	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	8 ##	1.699	1.959	3.176	1.699	0.26	0.51	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	90.964								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	8 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	8	0.01	0.022	0.09	0.005	0.001	0.03	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	4	14.	13.25	21.	4.	65.583	8.098	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	4	10.8	10.375	11.3	8.6	1.563	1.25	**	**	**	**
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	4	7.55	7.725	8.8	7.	0.596	0.772	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	4	7.525	7.394	8.8	7.	0.742	0.861	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	06/18/68-06/07/79	4	0.03	0.04	0.1	0.002	0.002	0.043	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	4 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	4 ##	0.008	0.008	0.01	0.005	0.	0.003	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	4	0.15	0.138	0.2	0.05	0.006	0.075	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	4 ##	75.	300.	1000.	50.	218333.333	467.262	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	4 ##	1.849	2.099	3.	1.699	0.381	0.617	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	125.743								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	4 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	4	0.015	0.021	0.05	0.005	0.	0.02	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	28	26.1	23.164	30.6	2.3	64.364	8.023	3.18	21.975	28.625	29.55
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	29	8.	8.3	13.	7.	1.208	1.099	7.2	7.85	8.7	9.
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	29	8.	8.128	9.5	7.	0.356	0.597	7.3	7.85	8.5	8.9
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	29	8.	7.773	9.5	7.	0.486	0.697	7.3	7.85	8.5	8.9
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	06/18/68-06/07/79	29	0.01	0.017	0.1	0.	0.001	0.026	0.001	0.003	0.014	0.05
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	23	0.05	0.07	0.3	0.01	0.003	0.056	0.024	0.05	0.09	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	23 ##	0.005	0.009	0.03	0.005	0.	0.007	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	19	0.33	0.424	1.089	0.025	0.125	0.354	0.025	0.12	0.78	1.
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	23	0.4	0.439	1.299	0.1	0.104	0.323	0.1	0.2	0.6	0.999
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/01/78	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/01/78	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/15/71-11/01/78	2 ##	5.	5.	5.	0.	0.	**	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/01/78	2	10.	10.	10.	0.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	19	100.	381.579	3200.	50.	628669.591	792.887	50.	50.	200.	1500.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	19	2.	2.087	3.505	1.699	0.315	0.561	1.699	1.699	2.301	3.176
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79			GEOMETRIC MEAN =	122.183							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	23 ##	0.05	0.077	0.5	0.025	0.01	0.098	0.05	0.05	0.05	0.16
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	23	0.03	0.027	0.07	0.005	0.	0.019	0.005	0.01	0.05	0.05
71900	MERCURY, TOTAL (UG/L AS HG)	03/15/71-11/01/78	2 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	36	9.15	9.156	18.9	1.2	24.675	4.967	3.72	4.55	12.2	17.44
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	36	11.6	11.847	15.	9.4	2.087	1.445	9.77	10.8	13.	13.86
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	36	7.45	7.511	8.8	6.5	0.324	0.569	6.97	7.	8.	8.5
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	36	7.447	7.229	8.8	6.5	0.406	0.637	6.97	7.	8.	8.5
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	06/18/68-06/07/79	36	0.036	0.059	0.316	0.002	0.004	0.064	0.003	0.01	0.1	0.108
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	33 ##	0.05	0.179	3.05	0.005	0.276	0.525	0.05	0.05	0.09	0.338
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	32	0.01	0.01	0.04	0.	0.005	0.	0.007	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	28	0.37	0.383	0.8	0.08	0.027	0.164	0.149	0.278	0.478	0.617
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	32	0.2	0.27	0.8	0.05	0.034	0.183	0.065	0.1	0.375	0.5
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/01/78	9 ##	5.	6.667	10.	5.	6.25	2.5	5.	5.	10.	10.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/01/78	9 ##	5.	6.667	20.	5.	25.	5.	5.	5.	5.	20.
01051	LEAD, TOTAL (UG/L AS PB)	03/15/71-11/01/78	10 ##	5.	7.6	20.	1.	28.489	5.337	1.4	5.	10.5	19.2
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/01/78	9	10.	11.111	20.	5.	29.861	5.465	5.	7.5	15.	20.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	34 ##	50.	252.941	4000.	50.	503324.421	709.454	50.	50.	100.	600.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79	34 ##	1.699	1.945	3.602	1.699	0.213	0.461	1.699	1.699	2.	2.716
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/14/71-06/07/79			GEOMETRIC MEAN =	88.086							
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	33 ##	0.05	0.058	0.2	0.05	0.001	0.028	0.05	0.05	0.05	0.08
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	32	0.035	0.037	0.09	0.01	0.	0.022	0.01	0.02	0.05	0.067
71900	MERCURY, TOTAL (UG/L AS HG)	03/15/71-11/01/78	10 ##	0.25	0.24	0.25	0.15	0.001	0.032	0.16	0.25	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/18/68-06/07/79	33	18.3	17.736	28.9	2.5	39.065	6.25	9.16	13.05	21.55	26.
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/07/79	33	9.4	9.688	19.9	7.4	4.699	2.168	8.	8.3	10.2	11.36
00400	PH (STANDARD UNITS)	06/18/68-06/07/79	32	7.7	7.844	9.	6.7	0.521	0.722	7.	7.325	8.5	9.
00400	CONVERTED PH (STANDARD UNITS)	06/18/68-06/07/79	32	7.7	7.437	9.	6.7	0.691	0.832	7.	7.325	8.5	9.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	06/18/68-06/07/79	32	0.02	0.037	0.2	0.001	0.002	0.046	0.001	0.003	0.048	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0120

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/70-06/07/79	27 ##	0.05	0.072	0.3	0.01	0.003	0.058	0.048	0.05	0.08	0.136
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/24/70-06/07/79	29 ##	0.005	0.008	0.03	0.005	0.	0.006	0.005	0.005	0.008	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/24/70-05/27/77	21	0.25	0.327	1.	0.01	0.067	0.258	0.021	0.195	0.445	0.852
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/70-06/07/79	29	0.2	0.293	1.	0.05	0.043	0.206	0.1	0.1	0.4	0.5
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/01/78	8 ##	7.5	10.	20.	5.	42.857	6.547	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/01/78	8	10.	14.375	40.	5.	174.554	13.212	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/15/71-11/01/78	7	9.	7.571	10.	3.	8.286	2.878	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/01/78	8	15.	23.125	60.	5.	363.839	19.075	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	28 ##	50.	732.143	8000.	50.	4290224.868	2071.286	50.	50.	175.	1700.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/14/71-06/07/79	28 ##	1.699	2.074	3.903	1.699	0.439	0.663	1.699	1.699	2.226	3.09
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	118.546								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/24/70-06/07/79	28 ##	0.05	0.09	1.1	0.025	0.039	0.198	0.05	0.05	0.05	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/24/70-06/07/79	28	0.02	0.049	0.58	0.005	0.011	0.107	0.005	0.01	0.05	0.055
71900	MERCURY, TOTAL (UG/L AS HG)	03/15/71-11/01/78	7 ##	0.25	0.3	0.6	0.25	0.018	0.132	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0121

NPS Station ID: RICH0121  
 Location: JAMES RIVER AT RICHMOND, VA  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080205  
 RF3 Index: 02080206004603.50  
 Description:

LAT/LON: 37.531948/ -77.434726

Agency: 112WRD  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 02037700  
 Within Park Boundary: No

Date Created: 11/07/81

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 3.96

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.04

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0121

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/24/79-09/03/81	24	16.25	15.167	27.	0.	75.058	8.664	3.75	6.5	24.75	26.5
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/24/79-09/03/81	24	3645.	5806.042	23100.	865.	34546406.476	5877.619	1215.	1597.5	8292.5	15750.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/24/79-09/03/81	24	145.	170.542	323.	95.	4089.911	63.952	105.	124.	238.75	261.
00300	OXYGEN, DISSOLVED MG/L	10/24/79-09/03/81	24	9.9	10.258	15.	6.5	5.192	2.279	7.55	8.35	12.35	13.5
00340	COD, 25N K2CR207 MG/L	10/24/79-09/03/81	22	13.	15.045	44.	3.	120.141	10.961	5.	7.	17.25	37.2
00400	PH (STANDARD UNITS)	10/24/79-09/03/81	24	7.45	7.421	8.	6.5	0.186	0.431	6.8	7.1	7.8	7.95
00400	CONVERTED PH (STANDARD UNITS)	10/24/79-09/03/81	24	7.447	7.207	8.	6.5	0.234	0.483	6.8	7.1	7.8	7.95
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/24/79-09/03/81	24	0.036	0.062	0.316	0.01	0.005	0.071	0.011	0.016	0.079	0.158
00500	RESIDUE, TOTAL (MG/L)	10/24/79-12/18/79	2	83.5	83.5	84.	83.	0.5	0.707	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/19/79-09/03/81	22	10.	19.5	81.	0.	482.071	21.956	1.2	4.75	32.25	61.8
00600	NITROGEN, TOTAL (MG/L AS N)	10/24/79-09/03/81	23	0.57	0.621	2.	0.13	0.141	0.375	0.208	0.42	0.72	0.962
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/24/79-09/03/81	24	0.275	0.298	0.63	0.05	0.024	0.154	0.08	0.213	0.388	0.585
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/24/79-09/03/81	24	0.305	0.311	1.7	0.04	0.103	0.322	0.055	0.123	0.358	0.45
00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/24/79-09/03/81	24	0.085	0.095	0.27	0.03	0.003	0.052	0.05	0.06	0.12	0.16
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	10/24/79-09/03/81	24 ##	0.003	0.003	0.005	0.	0.	0.003	0.	0.	0.005	0.005
01002	ARSENIC, TOTAL (UG/L AS AS)	10/24/79-09/03/81	24	1.	0.875	2.	0.	0.266	0.516	0.	0.625	1.	1.5
01027	CADMIUM, TOTAL (UG/L AS CD)	10/24/79-09/03/81	24	0.25	0.563	3.	0.	0.702	0.838	0.	0.	0.5	2.
01034	CHROMIUM, TOTAL (UG/L AS CR)	10/24/79-09/03/81	23	8.	9.391	27.	0.	52.863	7.271	0.5	3.	14.	21.2
01042	COPPER, TOTAL (UG/L AS CU)	10/24/79-09/03/81	24	1.25	4.042	20.	0.	30.346	5.509	0.	0.	5.75	13.
01051	LEAD, TOTAL (UG/L AS PB)	10/24/79-09/03/81	24	4.5	6.792	31.	1.	49.389	7.028	1.5	3.	7.5	18.5
01067	NICKEL, TOTAL (UG/L AS NI)	10/24/79-09/03/81	24	2.5	3.667	13.	1.	10.058	3.171	1.	2.	4.75	9.5
01077	SILVER, TOTAL (UG/L AS AG)	10/24/79-09/03/81	24	0.5	0.438	3.	0.	0.42	0.648	0.	0.	0.5	1.
01092	ZINC, TOTAL (UG/L AS ZN)	10/24/79-09/03/81	24	20.	29.167	160.	10.	912.319	30.205	10.	12.5	30.	50.
31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	10/24/79-09/03/81	20	84.	346.35	2400.	7.	510885.082	714.762	13.4	20.25	242.5	2211.
31625	LOG FECAL COLIFORM, MF,M-FC, 0.7 UM	10/24/79-09/03/81	20	1.923	1.941	3.38	0.845	0.505	0.711	1.126	1.306	2.384	3.313
31625	GM FECAL COLIFORM, MF,M-FC, 0.7 UM			GEOMETRIC MEAN =	87.238								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	10/24/79-09/03/81	22	93.5	210.136	1400.	9.	104132.79	322.696	13.9	49.5	220.	689.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	10/24/79-09/03/81	22	1.97	1.986	3.146	0.954	0.308	0.555	1.141	1.695	2.341	2.822
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR			GEOMETRIC MEAN =	96.754								
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	08/12/80-08/12/80	1	72.	72.	72.	72.	0.	0.	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	10/24/79-09/03/81	24	0.265	0.29	0.83	0.09	0.026	0.161	0.15	0.18	0.37	0.49
71887	NITROGEN, TOTAL, AS NO3 - MG/L	10/24/79-09/03/81	23	2.5	2.748	8.7	0.6	2.681	1.637	0.92	1.9	3.2	4.28
71900	MERCURY, TOTAL (UG/L AS HG)	10/24/79-09/03/81	11 ##	0.05	0.082	0.3	0.05	0.006	0.075	0.05	0.05	0.1	0.26
80154	SUSP. SEDIMENT CONCENTRATION-EVAP, AT 110C (MG/L)	03/25/80-09/03/81	17	16.	27.176	96.	4.	762.279	27.609	4.	10.5	37.5	92.
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/25/80-09/03/81	17	125.	680.353	5990.	13.	2164351.493	1471.174	14.6	51.5	549.	2862.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0121

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
00400 PH	Fresh Chronic	9.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
	Other-Lo Lim.	6.5	24	1	0.04	7	0	0.00	10	0	0.00	7	1	0.14
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
00720 CYANIDE, TOTAL	Fresh Acute	0.022	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
	Drinking Water	0.2	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
01002 ARSENIC, TOTAL	Fresh Acute	360.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
	Drinking Water	50.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
	Drinking Water	5.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
01034 CHROMIUM, TOTAL	Drinking Water	100.	23	0	0.00	7	0	0.00	9	0	0.00	7	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	24	1	0.04	7	0	0.00	10	1	0.10	7	0	0.00
	Drinking Water	1300.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
01051 LEAD, TOTAL	Fresh Acute	82.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
	Drinking Water	15.	24	3	0.13	7	1	0.14	10	2	0.20	7	0	0.00
01067 NICKEL, TOTAL	Fresh Acute	1400.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
	Drinking Water	100.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
01077 SILVER, TOTAL	Fresh Acute	4.1	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
	Drinking Water	100.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	24	1	0.04	7	0	0.00	10	1	0.10	7	0	0.00
	Drinking Water	5000.	24	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00
31625 FECAL COLIFORM, MF	Other-Hi Lim.	200.	20	6	0.30	6	0	0.00	7	2	0.29	7	4	0.57
71900 MERCURY, TOTAL	Fresh Acute	2.4	11	0	0.00	3	0	0.00	5	0	0.00	3	0	0.00
	Drinking Water	2.	11	0	0.00	3	0	0.00	5	0	0.00	3	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0122

NPS Station ID: RICH0122  
 Location: JEFFERDON DAVIS HIGHWAY BR J02  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080205001  
 RF3 Index: 02080205000107.44  
 Description:

LAT/LON: 37.532226/ -77.451392

Agency: 1113JAWQ  
 FIPS State/County: 51000 VIRGINIA/  
 STORET Station ID(s): JAMES J02 /J02 /J2  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 1  
 Elevation: 0  
 RF1 Mile Point: 0.240  
 RF3 Mile Point: 8.67

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.06

On/Off RF1: ON  
 On/Off RF3:

### Parameter Inventory for Station: RICH0122

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/05/69-11/04/71	5	20.	19.22	21.1	17.	2.792	1.671	**	**	**	**
00300 OXYGEN, DISSOLVED MG/L	05/05/69-11/04/71	5	8.8	8.64	9.2	7.4	0.523	0.723	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	05/05/69-11/04/71	5	1.5	1.66	2.1	1.4	0.083	0.288	**	**	**	**
00400 PH (STANDARD UNITS)	05/05/69-11/02/71	3	6.2	6.433	6.9	6.2	0.163	0.404	**	**	**	**
00400 CONVERTED PH (STANDARD UNITS)	05/05/69-11/02/71	3	6.2	6.335	6.9	6.2	0.178	0.422	**	**	**	**
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/05/69-11/02/71	3	0.631	0.463	0.631	0.126	0.085	0.292	**	**	**	**
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/19/71-11/04/71	4	0.01	0.012	0.026	0.001	0.	0.013	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/19/71-11/04/71	4	0.34	0.334	0.39	0.265	0.004	0.066	**	**	**	**
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/19/71-11/04/71	4	0.435	0.465	0.7	0.29	0.031	0.177	**	**	**	**
00650 PHOSPHATE, TOTAL (MG/L AS PO4)	10/19/71-11/04/71	4	0.14	0.18	0.33	0.11	0.01	0.101	**	**	**	**
00660 PHOSPHATE, ORTHO (MG/L AS PO4)	10/19/71-11/04/71	4	0.115	0.118	0.16	0.08	0.001	0.035	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	11/02/71-11/04/71	3	5.1	5.067	6.4	3.7	1.823	1.35	**	**	**	**
00690 CARBON, TOTAL (MG/L AS C)	11/02/71-11/04/71	3	12.3	12.	12.5	11.2	0.49	0.7	**	**	**	**
31505 COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	05/05/69-11/04/71	5	490.	5208.	24000.	330.	110385420.	10506.447	**	**	**	**
31505 LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	05/05/69-11/04/71	5	2.69	3.024	4.38	2.519	0.594	0.771	**	**	**	**
31505 GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	GEOMETRIC MEAN =			1056.826								
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	10/19/71-11/04/71	4	200.	2412.5	9180.	70.	20359491.667	4512.149	**	**	**	**
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	10/19/71-11/04/71	4	2.296	2.6	3.963	1.845	0.874	0.935	**	**	**	**
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			398.134								
32210 CHLOROPHYLL-A UG/L TRICROMATIC UNCORRECTED	10/19/71-11/02/71	3	3.8	4.3	5.3	3.8	0.75	0.866	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0122

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	5	0	0.00				4	0	0.00	1	0	0.00
	Fresh Chronic	9.	3	0	0.00				2	0	0.00	1	0	0.00
	Other-Lo Lim.	6.5	3	2	0.67				2	1	0.50	1	1	1.00
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	4	0	0.00				4	0	0.00			
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	5	1	0.20				4	1	0.25	1	0	0.00
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	4	2	0.50				4	2	0.50			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0123

NPS Station ID: RICH0123	LAT/LON: 37.532503/ -77.435282	Date Created: 04/08/89
Location: NORTH BANK JAMES RIVER BELOW FALL ZONE RICHMOND		
Station Type: /TYP/A/MBNT/STREAM		
RMI-Indexes:		
RMI-Miles:		
HUC: 02080206	Depth of Water: 0	
Major Basin: 02-NORTH-ATLANTIC	Elevation: 0	
Minor Basin: 2-JAMES		
RF1 Index: 02080206	RF1 Mile Point: 0.000	Aquifer:
RF3 Index: 02080205000100.08	RF3 Mile Point: 0.07	Water Body Id:
Description:		ECO Region:
VIRGINIA STATE WATER CONTROL BOARD RIVER: JAMES RIVER	AMBIENT MONITORING SECTION: 02	Distance from RF1: 3.80
	BASIN: 2 JAMES TOPO MAP #: 0131	Distance from RF3: 0.01
	TOPO MAP NAME: RICHMOND, VA	On/Off RF1: On/Off RF3:

## Parameter Inventory for Station: RICH0123

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0124

NPS Station ID: RICH0124  
 Location: JAMES RIVER AT DOWNSTREAM END OF HAXALL CANAL  
 Station Type: /TYP/A MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 02 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA.

LAT/LON: 37.533615/ -77.436392  
 Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS110.49  
 Within Park Boundary: No  
 Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

Date Created: 04/13/96  
 On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0124

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	36	22.9	23.119	29.1	15.	18.535	4.305	15.58	21.1	26.95	28.55
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	35	200.	215.714	374.	111.	4314.092	65.682	142.6	169.	260.	312.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	36	8.7	8.728	10.8	5.4	1.24	1.114	7.5	8.025	9.55	10.23
00400	PH (STANDARD UNITS)	09/20/95-10/26/98	36	8.035	7.941	8.58	7.24	0.125	0.354	7.448	7.613	8.158	8.453
00400	CONVERTED PH (STANDARD UNITS)	09/20/95-10/26/98	36	8.035	7.803	8.58	7.24	0.145	0.38	7.448	7.613	8.157	8.453
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/95-10/26/98	36	0.009	0.016	0.058	0.003	0.	0.013	0.004	0.007	0.024	0.036
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	38	1800.	5996.605	16000.	40.	50136815.759	7080.736	128.	330.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	38	3.244	3.221	4.204	1.602	0.705	0.839	2.107	2.519	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		1661.508							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0124

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Exceed	Obs	Exceed	Prop.	Obs	Exceed	Prop.		
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	36	0	0.00	20	0	0.00	4	0	0.00	12	0	0.00
00400	PH	Fresh Chronic	9.	36	0	0.00	20	0	0.00	4	0	0.00	12	0	0.00
		Other-Lo Lim.	6.5	36	0	0.00	20	0	0.00	4	0	0.00	12	0	0.00
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	38	33	0.87	22	21	0.95	4	3	0.75	12	9	0.75

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0125

NPS Station ID: RICH0125  
 Location: JAMES RIVER,DOWNSTREAM PARKHYDRO CSO, NORTH BANK  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS111.32  
 Within Park Boundary: No

Date Created: 07/16/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0125

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	56	23.65	23.309	30.1	14.7	19.578	4.425	15.8	20.725	27.1	28.86
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	14	4.	11.993	74.	1.4	375.442	19.376	1.7	2.875	9.85	52.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	49	197.	212.082	410.	110.	4687.535	68.466	134.	165.	256.5	318.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	14	175.	177.	266.	104.	2839.385	53.286	112.	129.5	219.5	260.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	56	6.3	5.891	9.8	0.3	6.06	2.462	2.07	4.475	7.8	8.85
00310	BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	15	1.7	3.02	11.	1.1	9.115	3.019	1.16	1.4	2.6	9.8
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	56	7.19	7.219	8.42	6.47	0.16	0.4	6.699	6.925	7.473	7.722
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	56	7.19	7.066	8.42	6.47	0.184	0.428	6.699	6.925	7.472	7.722
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	56	0.065	0.086	0.339	0.004	0.005	0.071	0.019	0.034	0.119	0.201
00403	PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	12	7.	7.058	7.7	6.3	0.206	0.454	6.36	6.725	7.475	7.7
00403	CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	12	7.	6.855	7.7	6.3	0.251	0.501	6.36	6.725	7.475	7.7
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	12	0.1	0.14	0.501	0.02	0.02	0.143	0.02	0.034	0.189	0.446
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	07/28/94-06/01/95	12	42.5	46.917	71.	24.	262.265	16.195	25.8	33.25	63.	69.5
00500	RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	12	127.5	128.167	188.	82.	1356.515	36.831	83.2	92.25	156.25	185.3
00505	RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	12	35.	33.	46.	14.	105.818	10.287	16.1	23.75	41.5	46.
00510	RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	12	96.	95.167	148.	47.	1235.97	35.156	47.9	64.75	123.5	145.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	5.5	11.643	44.	1.5	219.901	14.829	1.5	3.	13.	43.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	14##	1.5	3.393	15.	1.	17.353	4.166	1.	1.5	3.	12.5
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	14	4.5	8.571	38.	1.5	125.264	11.192	1.5	1.5	9.	32.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	13	0.06	0.144	0.9	0.02	0.064	0.252	0.02	0.02	0.105	0.712
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	12	0.01	0.017	0.05	0.005	0.	0.014	0.005	0.005	0.028	0.044
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	12	0.145	0.15	0.37	0.02	0.014	0.12	0.02	0.02	0.228	0.349
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	12	0.4	0.55	2.	0.2	0.234	0.483	0.23	0.3	0.575	1.64
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	12	0.085	0.102	0.29	0.04	0.004	0.067	0.043	0.063	0.13	0.245
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	2	4.	4.	4.2	3.8	0.08	0.283	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	12	11.	12.417	21.	6.	26.992	5.195	6.3	7.5	16.	21.
00945	SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	12	17.5	18.667	32.	9.	77.879	8.825	9.3	10.25	26.75	32.
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	8600.	8342.589	16000.	20.	50298400.901	7092.137	205.	790.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	56	3.933	3.523	4.204	1.301	0.631	0.794	2.309	2.898	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	3332.164								
70507	PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	12	0.05	0.069	0.19	0.04	0.002	0.048	0.04	0.04	0.082	0.175

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0125

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	14	1	0.07	10	0	0.00	1	0	0.00	3	1	0.33
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	56	12	0.21	35	6	0.17	5	1	0.20	16	5	0.31
00400 PH	Fresh Chronic	9.	56	0	0.00	35	0	0.00	5	0	0.00	16	0	0.00
	Other-Lo Lim.	6.5	56	1	0.02	35	0	0.00	5	0	0.00	16	1	0.06
00403 PH, LAB	Fresh Chronic	9.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00
	Other-Lo Lim.	6.5	12	2	0.17	8	2	0.25	1	0	0.00	3	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00
	Drinking Water	250.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	12	0	0.00	8	0	0.00	1	0	0.00	3	0	0.00
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	56	51	0.91	35	30	0.86	5	5	1.00	16	16	1.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0125

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	24.1	23.908	29.8	15.8	21.621	4.65	16.19	20.925	27.775	29.77
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	6	206.5	200.333	279.	110.	3523.067	59.355	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	7.65	7.75	9.7	6.4	1.152	1.073	6.43	6.925	8.35	9.67
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.33	7.392	8.25	6.61	0.21	0.458	6.697	7.085	7.773	8.133
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.319	7.191	8.25	6.61	0.254	0.504	6.697	7.085	7.772	8.133
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.048	0.064	0.245	0.006	0.004	0.067	0.008	0.017	0.082	0.21
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	790.	6128.636	16000.	45.	50476830.455	7104.705	62.	220.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2.898	3.168	4.204	1.653	0.908	0.953	1.745	2.342	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		1472.946							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0125

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	22.8	22.96	30.1	14.8	27.465	5.241	14.81	19.925	27.725	30.05
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	9	174.	187.222	301.	115.	5152.694	71.782	115.	129.	260.	301.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.05	7.97	9.8	5.	2.002	1.415	5.2	7.	9.25	9.76
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.38	7.41	8.42	6.78	0.246	0.496	6.79	6.925	7.72	8.353
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.378	7.208	8.42	6.78	0.291	0.539	6.79	6.925	7.72	8.353
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.042	0.062	0.166	0.004	0.003	0.056	0.005	0.019	0.119	0.163
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	3150.	5156.	16000.	260.	36284937.778	6023.698	265.	670.	8050.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	3.496	3.371	4.204	2.415	0.412	0.642	2.423	2.796	3.85	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		2349.421							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0125

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	21.4	21.958	27.2	15.8	16.728	4.09	15.86	18.6	26.	27.11
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	12	185.5	183.917	222.	150.	541.902	23.279	152.4	163.5	201.	219.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	5.4	4.583	8.1	0.3	7.12	2.668	0.57	1.55	6.725	7.89
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.12	7.047	7.7	6.58	0.107	0.327	6.601	6.69	7.19	7.598
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.12	6.942	7.7	6.58	0.119	0.345	6.601	6.69	7.19	7.598
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.076	0.114	0.263	0.02	0.007	0.081	0.027	0.065	0.207	0.251
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	16000.	11740.	16000.	490.	44121181.818	6642.378	580.	4100.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	4.204	3.88	4.204	2.69	0.316	0.562	2.752	3.526	4.204	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =		7592.74							

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0125

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	22.55	23.19	28.8	14.7	21.074	4.591	15.15	20.325	27.4	28.75
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	10	207.5	233.	350.	183.	3014.	54.9	183.2	188.75	272.5	342.4
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	5.85	5.34	8.7	0.8	6.183	2.486	0.93	3.675	7.	8.65
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.445	7.238	7.62	6.47	0.158	0.398	6.495	6.848	7.512	7.61
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.445	7.045	7.62	6.47	0.2	0.447	6.495	6.847	7.512	7.61
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.036	0.09	0.339	0.024	0.011	0.103	0.025	0.031	0.144	0.324
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	16000.	11350.	16000.	20.	47185980.	6869.205	42.	3500.	16000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	4.204	3.668	4.204	1.301	1.013	1.007	1.464	3.544	4.204	4.204

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0125

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			4659.438								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0125

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	24.9	24.45	29.	15.8	15.899	3.987	17.03	21.925	27.85	28.73
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	12	245.	247.333	410.	113.	8898.242	94.33	122.	156.75	335.25	392.
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	4.2	4.067	6.1	2.1	1.859	1.363	2.22	2.625	5.25	6.01
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.005	7.042	7.2	6.83	0.02	0.141	6.845	6.928	7.19	7.197
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.003	7.021	7.2	6.83	0.02	0.142	6.845	6.927	7.19	7.197
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.099	0.095	0.148	0.063	0.001	0.03	0.064	0.065	0.118	0.143
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	2400.	6873.333	16000.	170.	50774769.697	7125.642	329.	882.5	16000.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	3.38	3.483	4.204	2.23	0.445	0.667	2.415	2.942	4.204	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			3041.214								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0126

NPS Station ID: RICH0126

LAT/LON: 37.533892/ -77.454170

Location: JAMES RIVER, UPSTREAM PARKHYDRO CSO, NORTH BANK

Station Type: /TYP/A/AMBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Depth of Water: 0

Major Basin: 02-NORTH ATLANTIC

Elevation: 0

Minor Basin: 2-JAMES

RF1 Mile Point: 0.000

RF1 Index: 02080206

RF3 Mile Point: 1.58

RF3 Index: 02080206000501.22

Description:

VIRGINIA STATE WATER CONTROL BOARD  
RIVER: JAMES RIVER

AMBIENT MONITORING  
SECTION: 08

BASIN: 2-JAMES  
TOPO MAP #: 0131

REGION: 4 PIEDMONT

Date Created: 07/16/94

Agency: 21VASWCB

FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)

STORET Station ID(s): 2-JMS111.35

Within Park Boundary: No

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

### Parameter Inventory for Station: RICH0126

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	54	24.25	23.606	30.4	14.8	19.879	4.459	16.1	21.3	27.35	29.
00061 FLOW, STREAM, INSTANTANEOUS CFS	08/01/96-08/01/96	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/13/94-06/01/95	13	3.7	5.562	11.4	1.9	11.196	3.346	2.26	3.1	8.35	11.24
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	49	199.	211.796	359.	109.	3663.457	60.527	138.	166.	260.	300.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/13/94-06/01/95	13	191.	193.769	275.	120.	2591.192	50.904	122.4	142.	238.5	267.
00096 SALINITY AT 25 DEGREES C (MG/ML)	07/31/95-07/31/95	1	0.	0.	0.	0.	0.	0.	**	**	**	**
0299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	54	8.55	8.663	10.7	4.3	1.167	1.08	7.7	7.975	9.4	10.25
00310 BOD, 5 DAY, 20 DEG C MG/L	06/27/94-06/01/95	14	1.3	1.543	5.4	0.5	1.653	1.286	0.5	0.5	1.75	4.1
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	55	7.98	7.914	8.52	7.12	0.117	0.342	7.476	7.57	8.16	8.378
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	55	7.98	7.781	8.52	7.12	0.135	0.367	7.476	7.57	8.16	8.378
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	55	0.01	0.017	0.076	0.003	0.	0.014	0.004	0.007	0.027	0.033
00403 PH, LAB, STANDARD UNITS SU	07/28/94-06/01/95	11	7.4	7.264	7.7	6.4	0.149	0.385	6.48	7.1	7.5	7.7
00403 CONVERTED PH, LAB, STANDARD UNITS	07/28/94-06/01/95	11	7.4	7.068	7.7	6.4	0.191	0.437	6.48	7.1	7.5	7.7
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/28/94-06/01/95	11	0.04	0.085	0.398	0.02	0.012	0.111	0.02	0.032	0.079	0.35
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	07/28/94-06/01/95	11	54.	53.091	73.	33.	182.891	13.524	33.4	37.	64.	71.2
00500 RESIDUE, TOTAL (MG/L)	07/28/94-06/01/95	11	127.	129.091	175.	79.	1111.891	33.345	82.	98.	161.	173.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	07/28/94-06/01/95	11	28.	26.727	44.	12.	81.818	9.045	13.2	19.	33.	42.2
00510 RESIDUE, TOTAL FIXED (MG/L)	07/28/94-06/01/95	11	99.	102.364	145.	60.	1038.655	32.228	61.8	71.	133.	144.
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/13/94-06/01/95	13	7.	6.846	17.	3.	13.474	3.671	3.	4.	8.	13.8
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	07/13/94-06/01/95	13##	1.5	1.654	3.	1.	0.266	0.516	1.	1.5	2.	2.6
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/13/94-06/01/95	13	6.	5.5	14.	1.5	9.917	3.149	2.1	3.	7.	11.2
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/27/94-06/01/95	12##	0.02	0.038	0.1	0.02	0.001	0.029	0.02	0.02	0.06	0.094
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11##	0.005	0.012	0.03	0.005	0.	0.011	0.005	0.005	0.03	0.03
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	07/28/94-06/01/95	11	0.09	0.14	0.34	0.02	0.015	0.122	0.02	0.02	0.24	0.334
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/28/94-06/01/95	11	0.3	0.336	0.5	0.2	0.007	0.081	0.22	0.3	0.4	0.48
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/28/94-06/01/95	11	0.09	0.084	0.12	0.05	0.	0.022	0.052	0.06	0.1	0.116
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	07/13/94-07/14/94	2	3.9	3.9	4.4	3.4	0.5	0.707	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	07/28/94-06/01/95	11	14.	13.545	22.	6.	32.473	5.698	6.	7.	18.	21.8
00945 SULFATE, TOTAL (MG/L AS SO4)	07/28/94-06/01/95	11	20.	21.	34.	11.	78.2	8.843	11.	11.	28.	33.8
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	55	460.	2522.6	16000.	9.	22825995.207	4777.656	45.	130.	1700.	11920.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	55	2.663	2.734	4.204	0.954	0.611	0.782	1.653	2.114	3.23	4.06
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/28/94-06/01/95	11	541.664									
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	07/28/94-06/01/95	11	0.06	0.061	0.09	0.04	0.	0.018	0.04	0.04	0.08	0.088

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0126

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	13	0	0.00	9	0	0.00	1	0	0.00	3	0	0.00
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	54	0	0.00	33	0	0.00	5	0	0.00	16	0	0.00
00400 PH	Fresh Chronic	9.	55	0	0.00	34	0	0.00	5	0	0.00	16	0	0.00
	Other-Lo Lim.	6.5	55	0	0.00	34	0	0.00	5	0	0.00	16	0	0.00
00403 PH, LAB	Fresh Chronic	9.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
	Other-Lo Lim.	6.5	11	1	0.09	7	1	0.14	1	0	0.00	3	0	0.00
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
	Drinking Water	250.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	11	0	0.00	7	0	0.00	1	0	0.00	3	0	0.00
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	55	41	0.75	34	28	0.82	5	1	0.20	16	12	0.75

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1994 - Station RICH0126

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	25.25	24.06	29.9	16.8	20.912	4.573	16.82	20.3	27.675	29.7
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	6	222.5	223.833	294.	167.	2567.767	50.673	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.1	8.51	10.4	7.7	0.957	0.978	7.71	7.875	9.	10.38
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.9	7.94	8.42	7.5	0.087	0.295	7.506	7.71	8.16	8.404
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	11	7.9	7.853	8.42	7.5	0.096	0.309	7.506	7.71	8.16	8.404
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	11	0.013	0.014	0.032	0.004	0.	0.009	0.004	0.007	0.019	0.031
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	330.	3820.273	16000.	45.	41618058.818	6451.206	51.6	130.	8000.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2.519	2.781	4.204	1.653	0.825	0.908	1.701	2.114	3.903	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	604.194								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0126

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	23.15	23.37	30.4	14.9	25.945	5.094	15.04	20.5	27.8	30.35
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	9	222.	208.222	303.	114.	5230.194	72.32	114.	132.5	277.	303.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.6	8.63	10.2	7.3	0.802	0.896	7.35	7.8	9.2	10.16
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.84	7.791	8.32	7.28	0.113	0.336	7.296	7.493	8.035	8.293
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	7.818	7.679	8.32	7.28	0.127	0.356	7.296	7.492	8.035	8.293
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.015	0.021	0.052	0.005	0.	0.015	0.005	0.009	0.032	0.051
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	700.	3301.	16000.	400.	27119698.889	5207.658	406.	460.	4100.	15320.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	10	2.845	3.12	4.204	2.602	0.336	0.58	2.608	2.663	3.526	4.18
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1317.804								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0126

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	21.55	22.242	27.3	15.2	17.939	4.235	15.41	19.175	26.625	27.21
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	12	180.	182.417	236.	145.	808.992	28.443	147.1	154.25	206.5	230.3
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	9.25	8.7	10.7	4.3	2.695	1.642	5.29	8.125	9.75	10.43
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.555	7.65	8.52	7.12	0.125	0.354	7.207	7.443	7.78	8.373
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	7.555	7.548	8.52	7.12	0.137	0.369	7.207	7.442	7.78	8.373
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.028	0.028	0.076	0.003	0.	0.018	0.005	0.017	0.036	0.065
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	230.	2796.182	16000.	40.	26808027.364	5177.647	41.	45.	3500.	14640.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2.362	2.623	4.204	1.602	0.888	0.942	1.612	1.653	3.544	4.156
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	419.538								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0126

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	10	22.25	23.37	29.3	14.8	21.022	4.585	15.25	20.875	27.65	29.18
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	10	201.	233.	359.	182.	3440.667	58.657	182.4	189.	274.25	350.9
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	10	8.75	8.87	10.4	7.7	0.907	0.952	7.71	8.1	9.625	10.39
00400	PH (STANDARD UNITS)	06/27/94-10/26/98	10	8.05	8.001	8.4	7.54	0.085	0.292	7.555	7.75	8.247	8.399
00400	CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	10	8.05	7.915	8.4	7.54	0.093	0.306	7.555	7.75	8.247	8.399
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	10	0.009	0.012	0.029	0.004	0.	0.008	0.004	0.006	0.018	0.028
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	410.	2393.	16000.	45.	22791597.	4774.055	51.6	110.	1700.	13880.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	11	2.613	2.722	4.204	1.653	0.646	0.804	1.701	2.041	3.23	4.11

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0126

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			526.912								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0126

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/27/94-10/26/98	12	25.3	24.983	29.1	15.4	17.914	4.233	16.57	23.1	28.55	29.04
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/17/94-10/26/98	12	223.	220.167	340.	109.	5874.697	76.647	117.7	151.75	287.	332.8
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	06/27/94-10/26/98	12	8.6	8.608	10.6	7.5	0.679	0.824	7.56	7.975	8.9	10.21
00400 PH (STANDARD UNITS)	06/27/94-10/26/98	12	8.185	8.184	8.48	7.89	0.029	0.172	7.902	8.083	8.297	8.447
00400 CONVERTED PH (STANDARD UNITS)	06/27/94-10/26/98	12	8.184	8.153	8.48	7.89	0.031	0.175	7.902	8.083	8.297	8.447
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/27/94-10/26/98	12	0.007	0.007	0.013	0.003	0.	0.003	0.004	0.005	0.008	0.013
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	360.	552.417	2200.	9.	379955.538	616.405	45.3	155.	602.5	1930.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/27/94-10/26/98	12	2.555	2.481	3.342	0.954	0.359	0.6	1.302	2.176	2.777	3.274
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			302.812								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0127

NPS Station ID: RICH0127  
 Location: JAMES RIVER, AT TREDEGAR IRON WORKS  
 Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205

Depth of Water: 0  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206000501.22

Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: JAMES RIVER SECTION: 08 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

Agency: 21VASWCB  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 2-JMS111.17  
 Within Park Boundary: No

Date Created: 04/13/96

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0127

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/95-10/26/98	37	22.9	23.324	29.5	15.	19.231	4.385	15.86	21.2	27.2	28.58
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/05/95-10/26/98	36	194.5	208.	359.	111.	3707.029	60.885	142.9	163.75	251.75	297.9
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/20/95-10/26/98	37	8.7	8.654	10.8	5.1	1.446	1.203	7.18	7.95	9.45	10.14
00400	PH (STANDARD UNITS)	09/20/95-10/26/98	37	7.96	7.889	8.55	7.06	0.146	0.382	7.37	7.555	8.195	8.394
00400	CONVERTED PH (STANDARD UNITS)	09/20/95-10/26/98	37	7.96	7.726	8.55	7.06	0.173	0.416	7.37	7.555	8.195	8.394
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/95-10/26/98	37	0.011	0.019	0.087	0.003	0.	0.018	0.004	0.006	0.028	0.043
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	39	1800.	5307.769	16000.	20.	41380120.919	6432.738	130.	330.	9200.	16000.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	09/11/95-10/26/98	39	3.255	3.185	4.204	1.301	0.698	0.835	2.114	2.519	3.964	4.204
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	1530.47								

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0127

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a			
						Obs	Exceed	Obs	Exceed	Prop.	Obs	Exceed	Prop.		
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	37	0	0.00	21	0	0.00	4	0	0.00	12	0	0.00
00400	PH	Fresh Chronic	9.	37	0	0.00	21	0	0.00	4	0	0.00	12	0	0.00
		Other-Lo Lim.	6.5	37	0	0.00	21	0	0.00	4	0	0.00	12	0	0.00
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	39	34	0.87	23	20	0.87	4	3	0.75	12	11	0.92

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0128

NPS Station ID: RICH0128  
 Location: BYRD PARK SPRING AT RICHMOND, VA  
 Station Type: /TYP/A MBNT/SPRING  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080205  
 RF3 Index: 02080206000501.22  
 Description:

LAT/LON: 37.540004/ -77.477782

Agency: 112WRD  
 FIPS State/County: 51760 VIRGINIA/RICHMOND (CITY)  
 STORET Station ID(s): 02037570  
 Within Park Boundary: No

Date Created: 05/28/94

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0128

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/09/83-09/27/87	111	16.	15.823	17.5	13.5	1.179	1.086	14.	15.	17.	17.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/09/83-09/27/87	111	20.5	19.005	36.	-5.	90.884	9.533	6.1	12.5	26.	30.
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/09/83-09/27/87	114	10.03	10.944	63.	4.5	29.014	5.386	8.12	8.88	11.985	13.83
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/09/83-09/27/87	114	68.	68.482	85.	60.	11.101	3.332	65.	65.75	70.	72.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

### Annual Analysis for 1983 - Station RICH0128

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/09/83-09/27/87	15	17.	16.7	17.	16.	0.136	0.368	16.	16.5	17.	17.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/09/83-09/27/87	15	20.	18.733	35.	-5.	126.674	11.255	6.8	13.5	28.	35.
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/09/83-09/27/87	15	8.	11.959	63.	7.53	200.072	14.145	7.53	7.56	9.5	31.05
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/09/83-09/27/87	15	68.	67.467	75.	60.	13.41	3.662	61.8	65.	70.	73.2

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0128

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/09/83-09/27/87	33	15.5	15.47	17.5	14.	1.108	1.053	14.	14.75	16.5	17.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/09/83-09/27/87	33	18.	18.636	36.	1.	94.661	9.729	4.1	12.25	26.	31.6
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/09/83-09/27/87	34	10.89	11.269	16.58	4.5	6.826	2.613	8.76	9.303	13.103	15.515
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/09/83-09/27/87	34	70.	69.882	85.	65.	13.258	3.641	65.	68.	70.	73.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0128

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/09/83-09/27/87	20	15.5	15.35	17.	13.5	1.424	1.193	13.55	14.125	16.375	17.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/09/83-09/27/87	20	21.75	19.875	32.5	-1	84.97	9.218	6.2	15.25	26.75	31.6
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/09/83-09/27/87	21	9.18	9.955	14.83	7.44	4.75	2.179	7.928	8.425	11.115	14.334
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/09/83-09/27/87	21	67.	66.714	75.	62.	10.314	3.212	63.	65.	68.	71.6

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0128

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/09/83-09/27/87	25	16.5	16.232	17.5	15.	0.941	0.97	15.	15.	17.	17.5
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/09/83-09/27/87	25	17.5	17.92	30.	0.	78.722	8.873	5.6	9.25	25.75	28.5
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/09/83-09/27/87	26	9.81	10.241	13.72	8.47	2.081	1.443	8.632	9.155	11.145	12.864
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/09/83-09/27/87	26	70.	68.692	72.	63.	6.542	2.558	65.	66.75	70.25	72.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0128

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/09/83-09/27/87	18	15.5	15.694	17.5	14.5	1.063	1.031	14.5	14.875	16.625	17.5
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/09/83-09/27/87	18	24.25	20.444	34.	5.5	94.32	9.712	6.4	7.375	27.125	30.4
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	08/09/83-09/27/87	18	11.6	11.652	14.51	9.59	2.578	1.606	9.617	10.068	12.875	14.069
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/09/83-09/27/87	18	68.	68.444	73.	65.	6.497	2.549	65.	65.75	70.	73.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0129

NPS Station ID: RICH0129  
 Location: JAMES RIVER AT RICHMOND  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: NORTH ATLANTIC  
 Minor Basin: JAMES RIVER  
 RF1 Index: 02080205001  
 RF3 Index: 02080207116900.70  
 Description:  
 WHOLE BODY FISH COMPOSITE SAM. RESIDUE DATA. FWS NMP TRENDSTA

LAT/LON: 37.541670/ -77.447226

Agency: 11FWS  
 FIPS State/County: 51041 VIRGINIA/CHESTERFIELD  
 STORET Station ID(s): 055  
 Within Park Boundary: No

Date Created: 10/05/77

Depth of Water: 0  
 Elevation: 0

RF1 Mile Point: 0.010  
 RF3 Mile Point: 1.10

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 14.50  
 Distance from RF3: 0.21

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0129

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00023	SAMPLE WEIGHT IN POUNDS	10/01/70-10/01/84	34	1.8	1.582	3.6	0.3	0.631	0.794	0.45	0.9	2.	2.5
00024	SAMPLE LENGTH IN INCHES	10/01/70-10/01/84	34	16.05	14.853	21.5	8.6	11.447	3.383	9.6	11.675	16.85	19.05
01004	ARSENIC TOTAL IN FISH OR ANIMAL WET WT MG/KG	10/01/77-10/01/86	15	0.06	0.797	11.	0.01	7.969	2.823	0.022	0.04	0.1	4.49
01149	SELENIUM, TOTAL IN FISH OR ANIMALS WET WGT MG/KG	10/01/77-10/01/86	15	0.36	2.351	30.	0.21	58.515	7.65	0.24	0.29	0.49	12.366
34680	ALDRIN IN FISH TISSUE WET WEIGHT MG/KG	10/01/86-10/01/86	3	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
34684	DIELDRIN TISM/G/KG	10/01/70-10/01/86	37	0.04	0.101	0.47	0.01	0.018	0.133	0.01	0.01	0.12	0.392
34685	ENDRIN WET WGT TISM/G/KG	10/01/70-10/01/86	37	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
34686	HEPTACHLOR EPOXIDE WET WGT TISM/G/KG	10/01/86-10/01/86	3	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
34687	HEPTACHLOR WET WGT TISM/G/KG	10/01/70-10/01/86	37	0.01	0.01	0.02	0.01	0.	0.002	0.01	0.01	0.01	0.01
34688	HEXAChLOROBENZENE WET WGT TISM/G/KG	10/01/77-10/01/86	15	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
34691	TOXAPHENE WET WGT TISM/G/KG	10/01/71-10/01/86	33	0.1	0.203	1.5	0.1	0.085	0.291	0.1	0.1	0.1	0.56
39063	CHLORDANE-CIS ISOMER, TISSUE WET WGT (UG/G)	10/01/77-10/01/86	15	0.01	0.027	0.1	0.01	0.001	0.027	0.01	0.01	0.04	0.082
39066	CHLORDANE-TRANS ISOMER, TISSUE WET WGT (UG/G)	10/01/77-10/01/86	15	0.01	0.015	0.04	0.01	0.	0.009	0.01	0.01	0.02	0.034
39069	CHLORDANE-NONACHLOR,CIS ISO, TISSUE WET WGT(UG/G)	10/01/77-10/01/86	15	0.01	0.016	0.04	0.01	0.	0.011	0.01	0.01	0.02	0.04
39072	CHLORDANE-NONACHLOR, TRANS ISO, TISSUE, WET WT,UG/G	10/01/77-10/01/86	15	0.02	0.028	0.09	0.01	0.001	0.023	0.01	0.01	0.04	0.072
39074	BHC-ALPHA ISOMER, TISSUE UG/G WET WGT	10/01/70-10/01/86	19	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
39105	PERCENT FAT HEXANE EXTRACTION	10/01/70-10/01/86	37	6.1	7.259	22.1	0.9	23.419	4.839	1.96	3.45	10.45	12.94
39290	DDT TOTAL IN TISSUE WET WGT BASIS (UG/G)	10/01/70-10/01/86	37	0.03	0.094	0.65	0.01	0.023	0.15	0.01	0.01	0.11	0.272
39781	LINDANE AQUATIC ORGANISMS WT WGT BASIS(UG/G)	10/01/86-10/01/86	3	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
39785	GAMMA-BHC(LINDANE), TISSUE, WET WEIGHT, MG/KG	10/01/77-10/01/84	12	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
70320	MOISTURE CONTENT (PERCENT OF TOTAL WET WEIGHT)	10/01/77-10/01/86	15	70.	69.267	75.	59.	16.21	4.026	62.	68.	72.	74.4
71935	MERCURY, TOTAL IN FISH (PPM,WET WEIGHT BASIS)	10/01/77-10/01/86	15	0.1	0.125	0.3	0.07	0.005	0.067	0.07	0.08	0.2	0.24
71936	LEAD, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/77-10/01/86	15	0.1	0.106	0.32	0.01	0.005	0.074	0.01	0.07	0.14	0.224
71937	COPPER, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/79-10/01/86	12	0.485	0.599	1.43	0.32	0.096	0.31	0.329	0.423	0.758	1.259
71938	ZINC, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/79-10/01/86	12	14.35	14.687	17.69	12.79	2.175	1.475	12.982	13.625	15.51	17.495
71940	CADMUUM,TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/01/77-10/01/86	15	0.06	0.129	0.81	0.01	0.044	0.21	0.01	0.03	0.11	0.54
79178	PCB-1242 TISDRYWTMG/KG	10/01/73-10/01/77	11	0.1	0.1	0.1	0.1	0.	0.	0.1	0.1	0.1	0.1
79179	PCB-1254 TISDRYWTMG/KG	10/01/70-10/01/86	37	0.3	0.519	3.8	0.1	0.466	0.682	0.1	0.1	0.65	1.22
79182	PCB-1248 TISDRYWTMG/KG	10/01/77-10/01/86	15	0.1	0.1	0.1	0.1	0.	0.	0.1	0.1	0.1	0.1
79183	PCB-1260 TISDRYWTMG/KG	10/01/73-10/01/86	23	0.1	0.413	4.2	0.1	0.759	0.871	0.1	0.1	0.4	1.02
81312	POLYCHLORINATEDBIPHENYLS FISH TISSUE WET WGT MG/KG	10/01/86-10/01/86	3	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
81645	MIREX IN FISH TISSUE WET WEIGHT UG/G	10/01/81-10/01/86	9	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
81823	PENTACHLOROANISOLE(PCP)INFISH TISSUE WET WGT MG/KG	10/01/81-10/01/86	9	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	10/01/70-10/01/86	37	0.12	0.158	0.82	0.01	0.025	0.157	0.02	0.045	0.215	0.33
81944	DDT(INCLUDES DDE & DDD) IN TISSUE WET WEIGHT MG/KG	10/01/86-10/01/86	3	0.03	0.023	0.03	0.01	0.	0.012	**	**	**	**
81987	TOTAL SEDIMENT PARTICLE SIZE %COARSER THAN 9.00PHI	10/01/70-10/01/86	37	0.05	0.1	0.61	0.01	0.017	0.131	0.01	0.01	0.145	0.298

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0129

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
82004	DACTHAL IN TISSUE SAMPLE WET WEIGHT MG/KG	10/01/79-10/01/86	12	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
82029	OXYCHLORDANE IN TISSUE SAMPLE WET WEIGHT MG/KG	10/01/79-10/01/86	12	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0129

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00023	SAMPLE WEIGHT IN POUNDS	10/01/70-10/01/84	34	1.8	1.582	3.6	0.3	0.631	0.794	0.45	0.9	2.	2.5
00024	SAMPLE LENGTH IN INCHES	10/01/70-10/01/84	34	16.05	14.853	21.5	8.6	11.447	3.383	9.6	11.675	16.85	19.05
01004	ARSENIC TOTAL IN FISH OR ANIMAL WET WT MG/KG	10/01/77-10/01/86	15	0.06	0.797	11.	0.01	7.969	2.823	0.022	0.04	0.1	4.49
01149	SELENIUM, TOTAL IN FISH OR ANIMALS WET WGT MG/KG	10/01/77-10/01/86	15	0.36	2.351	30.	0.21	58.515	7.65	0.24	0.29	0.49	12.366
34684	DIELDRIN TISMKG/KG	10/01/70-10/01/86	37	0.04	0.101	0.47	0.01	0.018	0.133	0.01	0.01	0.12	0.392
34685	ENDRIN WET WGTTISMKG/KG	10/01/70-10/01/86	37	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
34687	HEPTACHLOR WET WGTTISMKG/KG	10/01/70-10/01/86	37	0.01	0.01	0.02	0.01	0.	0.002	0.01	0.01	0.01	0.01
34688	HEXACHLOROBENZENE WET WGTTISMKG/KG	10/01/77-10/01/86	15	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
34691	TOXAPHENE WET WGTTISMKG/KG	10/01/71-10/01/86	33	0.1	0.203	1.5	0.1	0.085	0.291	0.1	0.1	0.1	0.56
39063	CHLORDANE-CIS ISOMER, TISSUE WET WGT (UG/G)	10/01/77-10/01/86	15	0.01	0.027	0.1	0.01	0.001	0.027	0.01	0.01	0.04	0.082
39066	CHLORDANE-TRANS ISOMER, TISSUE WET WGT (UG/G)	10/01/77-10/01/86	15	0.01	0.015	0.04	0.01	0.	0.009	0.01	0.01	0.02	0.034
39069	CHLORDANE-NONACHLOR,CIS ISO, TISSUE WET WGT(UG/G)	10/01/77-10/01/86	15	0.01	0.016	0.04	0.01	0.	0.011	0.01	0.01	0.02	0.04
39072	CHLORDANE-NONACHLOR, TRANS ISO, TISSUE, WET WT, UG/G	10/01/77-10/01/86	15	0.02	0.028	0.09	0.01	0.001	0.023	0.01	0.01	0.04	0.072
39074	BHC-ALPHA ISOMER, TISSUE UG/G WET WGT	10/01/70-10/01/86	19	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
39105	PERCENT FAT HEXANE EXTRACTION	10/01/70-10/01/86	37	6.1	7.259	22.1	0.9	23.419	4.839	1.96	3.45	10.45	12.94
39290	DDT TOTAL IN TISSUE WET WGT BASIS (UG/G)	10/01/70-10/01/86	37	0.03	0.094	0.65	0.01	0.023	0.15	0.01	0.01	0.11	0.272
39785	GAMMA-BHC(LINDANE), TISSUE, WET WEIGHT, MG/KG	10/01/77-10/01/84	12	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
70320	MOISTURE CONTENT (PERCENT OF TOTAL WET WEIGHT)	10/01/77-10/01/86	15	70.	69.267	75.	59.	16.21	4.026	62.	68.	72.	74.4
71935	MERCURY, TOTAL IN FISH (PPM,WET WEIGHT BASIS)	10/01/77-10/01/86	15	0.1	0.125	0.3	0.07	0.005	0.067	0.07	0.08	0.2	0.24
71936	LEAD, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/77-10/01/86	15	0.1	0.106	0.32	0.01	0.005	0.074	0.01	0.07	0.14	0.224
71937	COPPER, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/79-10/01/86	12	0.485	0.599	1.43	0.32	0.096	0.31	0.329	0.423	0.758	1.259
71938	ZINC, TOTAL IN FISH OR ANIMALS-WET WEIGHT BASIS	10/01/79-10/01/86	12	14.35	14.687	17.69	12.79	2.175	1.475	12.982	13.625	15.51	17.495
71940	CADMUUM, TOTAL IN FISH OR ANIMAL-WET WEIGHT BASIS	10/01/77-10/01/86	15	0.06	0.129	0.81	0.01	0.044	0.21	0.01	0.03	0.11	0.54
79179	PCB-1254 TISDRYWTMG/KG	10/01/70-10/01/86	37	0.3	0.519	3.8	0.1	0.466	0.682	0.1	0.1	0.65	1.22
79182	PCB-1248 TISDRYWTMG/KG	10/01/77-10/01/86	15	0.1	0.1	0.1	0.1	0.	0.	0.1	0.1	0.1	0.1
79183	PCB-1260 TISDRYWTMG/KG	10/01/73-10/01/86	23	0.1	0.413	4.2	0.1	0.759	0.871	0.1	0.1	0.4	1.02
81896	DDE TOTAL IN TISSUE WET WEIGHT MG/KG	10/01/70-10/01/86	37	0.12	0.158	0.82	0.01	0.025	0.157	0.02	0.045	0.215	0.33
81987	TOTAL SEDIMENT PARTICLE SIZE %COARSER THAN 9.00PHI	10/01/70-10/01/86	37	0.05	0.1	0.61	0.01	0.017	0.131	0.01	0.01	0.145	0.298
82004	DACTHAL IN TISSUE SAMPLE WET WEIGHT MG/KG	10/01/79-10/01/86	12	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01	0.01
82029	OXYCHLORDANE IN TISSUE SAMPLE WET WEIGHT MG/KG	10/01/79-10/01/86	12	0.01	0.01	0.01	0.01	0.01	0.	0.	0.01	0.01	0.01

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0130

NPS Station ID: RICH0130  
 Location: RT. 156 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206062  
 RF3 Index: 02080106003711.55  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: CHICKAHOMINY RI. SECTION: 05 TOPO MAP #: 0136 TOPO MAP NAME: SEVEN PINES, VA

LAT/LON: 37.551948/ -77.271392

Agency: 21VASWCB  
 FIPS State/County: 51085 VIRGINIA/HANOVER  
 STORET Station ID(s): 2-CHK055.04 /VA2-05-X0056/VA2-4X0056  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 7.110  
 RF3 Mile Point: 12.25

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.60  
 Distance from RF3: 0.00

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0130

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	165	15.6	15.453	29.	0.	58.638	7.658	4.96	8.85	21.7	25.6
00070	TURBIDITY, (JACKSON CANDLE UNITS)	04/28/71-07/09/71	3	5.	5.	7.	3.	4.	2.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/19/94-12/14/98	54	8.8	9.456	24.	3.6	18.607	4.314	4.85	6.7	11.225	14.8
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/18/94-12/14/98	46	149.5	147.543	247.	81.	1219.631	34.923	101.7	127.75	171.	182.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/94-12/14/98	54	140.	140.019	227.	69.	1048.471	32.38	99.5	119.5	154.25	177.5
00096	SALINITY AT 25 DEGREES C (MG/ML)	10/18/94-11/02/95	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	54	6.	6.422	12.7	1.9	8.573	2.928	2.7	3.875	8.6	10.5
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	110	7.5	7.656	14.2	1.9	8.066	2.84	4.4	5.2	10.	11.6
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	77	1.6	1.631	3.5	0.3	0.623	0.79	0.5	1.	2.	3.
00340	COD, 25N K2CR2O7 MG/L	07/19/94-12/14/98	54	24.5	24.593	46.	10.	58.925	7.676	16.	19.	28.25	36.5
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	162	6.5	6.531	7.6	5.3	0.149	0.385	6.009	6.3	6.7	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	162	6.5	6.349	7.6	5.3	0.182	0.426	6.009	6.3	6.7	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	162	0.316	0.447	5.012	0.025	0.317	0.563	0.1	0.2	0.501	0.98
00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	66	6.7	6.676	7.8	6.	0.098	0.312	6.3	6.4	6.9	7.1
00403	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	66	6.7	6.576	7.8	6.	0.108	0.328	6.3	6.4	6.9	7.1
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	66	0.2	0.265	1.	0.016	0.034	0.184	0.079	0.126	0.398	0.501
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)	09/20/67-12/14/98	66	20.	22.424	48.	6.	115.663	10.755	10.	14.	29.75	40.3
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	159	101.	105.692	224.	1.	853.506	29.215	77.	89.	116.	141.
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	160	39.	41.756	133.	12.	320.311	17.897	22.1	29.	51.	65.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	156	63.	65.417	184.	8.	623.625	24.972	37.	49.5	77.	92.
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	03/23/73-03/23/73	1	42.	42.	42.	42.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	156	5.	8.189	80.	0.	131.391	11.463	0.5	3.	8.	19.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	161	2.	3.624	50.	0.	28.663	5.354	0.5	1.5	4.	8.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	155	3.	4.639	60.	0.	59.07	7.686	0.5	1.5	5.	10.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	157 ##	0.05	0.062	0.7	0.005	0.006	0.075	0.02	0.02	0.05	0.102
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	158 ##	0.005	0.008	0.05	0.005	0.	0.007	0.005	0.005	0.01	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	140	0.11	0.157	1.199	0.01	0.029	0.17	0.02	0.05	0.205	0.309
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	158	0.5	0.604	1.699	0.2	0.066	0.257	0.3	0.4	0.8	0.906
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	18 ##	0.025	0.09	0.35	0.025	0.01	0.101	0.025	0.025	0.17	0.26
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	4	0.71	1.283	3.2	0.51	1.651	1.285	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/94-12/14/98	54	0.085	0.085	0.17	0.03	0.001	0.03	0.04	0.06	0.103	0.125
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/94-08/22/96	26	10.1	9.988	16.9	4.8	6.862	2.62	6.63	8.3	11.825	12.93
00687	CARBON, ORGANIC, IN BED MATERIAL (GM/KG AS C)	02/15/95-11/10/97	2	9.35	9.35	13.6	5.1	36.125	6.01	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	56	32.	32.411	55.	20.	62.501	7.906	22.	26.	38.75	42.
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	55	17.	18.164	52.	6.	67.991	8.246	10.6	13.	21.	26.4
00945	SULFATE, TOTAL (MGL/L AS SO4)	07/19/94-12/14/98	54	9.	10.63	52.	2.	75.709	8.701	2.5	5.	14.25	19.
01002	ARSENIC, TOTAL (UG/L AS AS)	03/15/71-11/20/78	10##	2.	2.	5.	0.5	1.722	1.312	0.55	1.	2.5	4.75
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	02/15/95-11/10/97	2 ##	3.75	3.75	5.	2.5	3.125	1.768	**	**	**	**
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	02/15/95-11/10/97	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	11/23/70-11/20/78	13 ##	5.	5.077	10.	1.	3.41	1.847	2.6	5.	5.	8.
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	02/15/95-11/10/97	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01029	CHROMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	02/15/95-11/10/97	2	20.71	20.71	22.8	18.62	8.736	2.956	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/20/78	23 ##	5.	7.826	35.	5.	40.514	6.365	5.	5.	10.	10.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-11/20/78	22 ##	5.	9.091	30.	5.	58.658	7.659	5.	5.	10.	27.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	02/15/95-11/10/97	2 ##	13.7	13.7	24.9	2.5	250.88	15.839	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	06/29/70-11/20/78	4	1249.	1234.25	1839.	600.	257810.25	507.75	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	20##	5.	9.475	50.	1.5	109.828	10.48	4.1	5.	10.	19.4
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	02/15/95-11/10/97	2	18.375	18.375	27.1	9.65	152.251	12.339	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	02/15/95-11/10/97	2	211.85	211.85	285.7	138.	10907.645	104.44	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/20/78	4	85.	112.475	209.9	70.	4418.503	66.472	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	10##	50.	41.	50.	5.	360.	18.974	5.	38.75	50.	50.
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	02/15/95-11/10/97	2	8.955	8.955	12.6	5.31	26.572	5.155	**	**	**	**
01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	02/15/95-11/10/97	2 ##	2.5	2.5	2.5	0.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/20/78	23	20.	24.565	60.	5.	195.257	13.973	5.	20.	30.	46.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	02/15/95-11/10/97	2	73.87	73.87	117.9	29.84	3877.282	62.268	**	**	**	**
01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	02/15/95-11/10/97	2 ##	2.5	2.5	2.5	0.	0.	0.	**	**	**	**
01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	02/15/95-11/10/97	2	7231.5	7231.5	11783.	2680.	41432304.5	6436.793	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	02/15/95-11/10/97	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	02/15/95-11/10/97	2	7231.	7231.	7942.	6520.	1011042.	1005.506	**	**	**	**
31505	COLIFORM, TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	09/20/67-10/28/77	18	1500.	3675.556	23000.	230.	32589873.203	5708.754	230.	587.5	4300.	12200
31505	LOG COLIFORM, TOT,MPN,CONFIRMED TEST,35C (TUBE 3150	09/20/67-10/28/77	18	3.176	3.187	4.362	2.362	0.35	0.592	2.362	2.763	3.633	4.073
31505	GM COLIFORM, TOT,MPN,CONFIRMED TEST,35C (TUBE 31506												
31615	FECAL, COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	53	210.	1187.642	16000.	9.	10104434.619	3178.747	13.4	45.	700.	3060.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	53	2.322	2.275	4.204	0.954	0.697	0.835	1.093	1.653	2.845	3.479
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)												
31616	FECAL, COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	93 ##	50.	100.538	1500.	50.	26766.012	163.603	50.	50.	100.	200.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	93 ##	1.699	1.861	3.176	1.699	0.075	0.274	1.699	1.699	2.	2.301
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C												
34480	THALLIUM DRY WGTBOTMG/KG	02/15/95-11/10/97	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	02/15/95-11/10/97	2 ##	36.25	36.25	37.5	35.	3.125	1.768	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2 ##	15.	15.	25.	5.	200.	14.142	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	02/15/95-11/10/97	2 ##	35.	35.	40.	30.	50.	7.071	**	**	**	**
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2 ##	13.75	13.75	22.5	5.	153.125	12.374	**	**	**	**
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2 ##	13.75	13.75	22.5	5.	153.125	12.374	**	**	**	**
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2 ##	12.5	12.5	20.	5.	112.5	10.607	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	02/15/95-11/10/97	2 ##	15.	15.	25.	5.	200.	14.142	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2 ##	30.	30.	40.	20.	200.	14.142	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	02/15/95-11/10/97	2 ##	88.75	88.75	117.5	60.	1653.125	40.659	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	02/15/95-11/10/97	2 ##	13.75	13.75	22.5	5.	153.125	12.374	**	**	**	**
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	02/15/95-11/10/97	2 ##	37.5	37.5	60.	15.	1012.5	31.82	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	99	0.1	0.132	1.3	0.05	0.023	0.153	0.05	0.05	0.2	0.3
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	153	0.06	0.092	1.299	0.005	0.017	0.129	0.03	0.04	0.1	0.16
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	21 ##	0.25	0.245	0.25	0.15	0.	0.022	0.25	0.25	0.25	0.25
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	02/15/95-11/10/97	2 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
75045	HEPTACHLOR EPOXIDE SEDIMENT,DRY,WT,UG/KG	02/15/95-11/10/97	2 ##	15.	15.	25.	5.	200.	14.142	**	**	**	**
79799	DICOFOL (KELTHANE) SEDIMENT,DRY,WT,UG/KG	02/15/95-11/10/97	2 ##	56.25	56.25	75.	37.5	703.125	26.517	**	**	**	**
82007	PERCENT SAND IN SEDIMENT ON A DRY WEIGHT BASIS	02/15/95-11/10/97	2	84.22	84.22	89.2	79.24	49.601	7.043	**	**	**	**
82008	SEDIMENT PRCTL.SIZE CLASS .0039-.0625 SILT %DRY WT	02/15/95-11/10/97	2	7.405	7.405	9.2	5.61	6.444	2.539	**	**	**	**
82009	SEDIMENT PRCTL.SIZE CLASS <.0039 CLAY %DRY WT	02/15/95-11/10/97	2	7.675	7.675	15.15	0.2	111.751	10.571	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

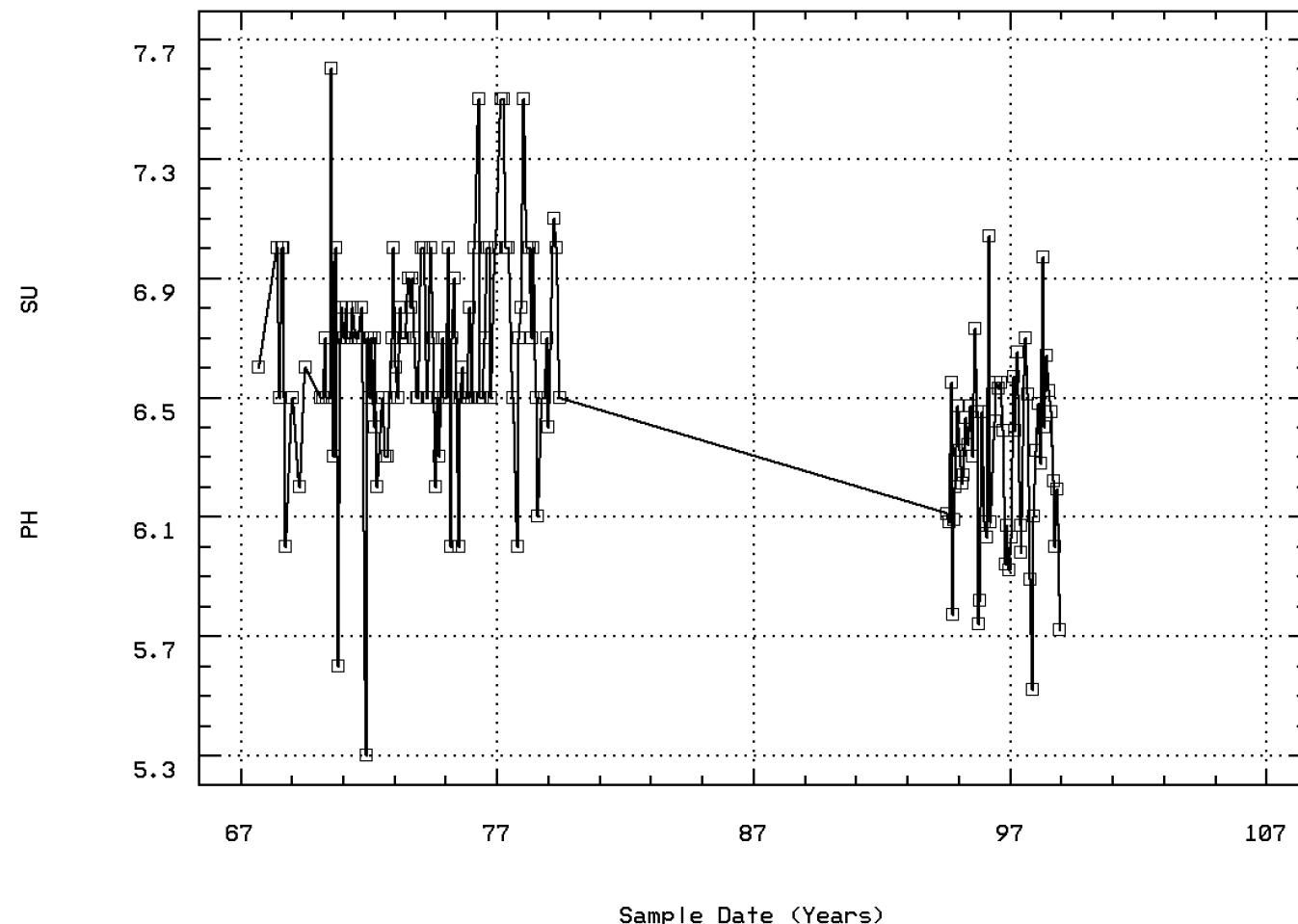
### EPA Water Quality Criteria Analysis for Station: RICH0130

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	3	0	0.00	1	0	0.00	2	0	0.00			
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	54	0	0.00	16	0	0.00	25	0	0.00	13	0	0.00
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	54	14	0.26	15	10	0.67	26	2	0.08	13	2	0.15
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	110	8	0.07	35	5	0.14	41	1	0.02	34	2	0.06
00400 PH	Fresh Chronic	9.	162	0	0.00	50	0	0.00	67	0	0.00	45	0	0.00
	Other-Lo Lim.	6.5	162	88	0.54	50	25	0.50	67	42	0.63	45	21	0.47
00403 PH, LAB	Fresh Chronic	9.	66	0	0.00	20	0	0.00	28	0	0.00	18	0	0.00
	Other-Lo Lim.	6.5	66	24	0.36	20	4	0.20	28	16	0.57	18	4	0.22
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	158	0	0.00	47	0	0.00	65	0	0.00	46	0	0.00
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	140	0	0.00	43	0	0.00	57	0	0.00	40	0	0.00
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	18	0	0.00	4	0	0.00	8	0	0.00	6	0	0.00
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	55	0	0.00	17	0	0.00	25	0	0.00	13	0	0.00
	Drinking Water	250.	55	0	0.00	17	0	0.00	25	0	0.00	13	0	0.00
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	54	0	0.00	16	0	0.00	25	0	0.00	13	0	0.00
01002 ARSENIC, TOTAL	Fresh Acute	360.	10	0	0.00	2	0	0.00	4	0	0.00	4	0	0.00
	Drinking Water	50.	10	0	0.00	2	0	0.00	4	0	0.00	4	0	0.00
01027 CADMIUM, TOTAL	Fresh Acute	3.9	2 &	1	0.50	1	0	0.00		1	1	1	1	1.00
	Drinking Water	5.	2 &	1	0.50	1	0	0.00		1	1	1	1	1.00
01034 CHROMIUM, TOTAL	Drinking Water	100.	23	0	0.00	3	0	0.00	8	0	0.00	12	0	0.00
01042 COPPER, TOTAL	Fresh Acute	18.	22	3	0.14	3	1	0.33	8	1	0.13	11	1	0.09
	Drinking Water	1300.	22	0	0.00	3	0	0.00	8	0	0.00	11	0	0.00
01051 LEAD, TOTAL	Fresh Acute	82.	20	0	0.00	3	0	0.00	9	0	0.00	8	0	0.00
	Drinking Water	15.	20	2	0.10	3	0	0.00	9	1	0.11	8	1	0.13
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	10	0	0.00	1	0	0.00	3	0	0.00	6	0	0.00
	Drinking Water	100.	10	0	0.00	1	0	0.00	3	0	0.00	6	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	23	0	0.00	3	0	0.00	8	0	0.00	12	0	0.00
	Drinking Water	5000.	23	0	0.00	3	0	0.00	8	0	0.00	12	0	0.00
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	18	10	0.56	9	6	0.67	4	2	0.50	5	2	0.40
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	53	27	0.51	16	12	0.75	24	9	0.38	13	6	0.46
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	93	12	0.13	27	4	0.15	38	6	0.16	28	2	0.07
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00						
71900 MERCURY, TOTAL	Fresh Acute	2.4	21	0	0.00	4	0	0.00	9	0	0.00	8	0	0.00
	Drinking Water	2.	21	0	0.00	4	0	0.00	9	0	0.00	8	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station: RICH0130 Parameter Code: 00400

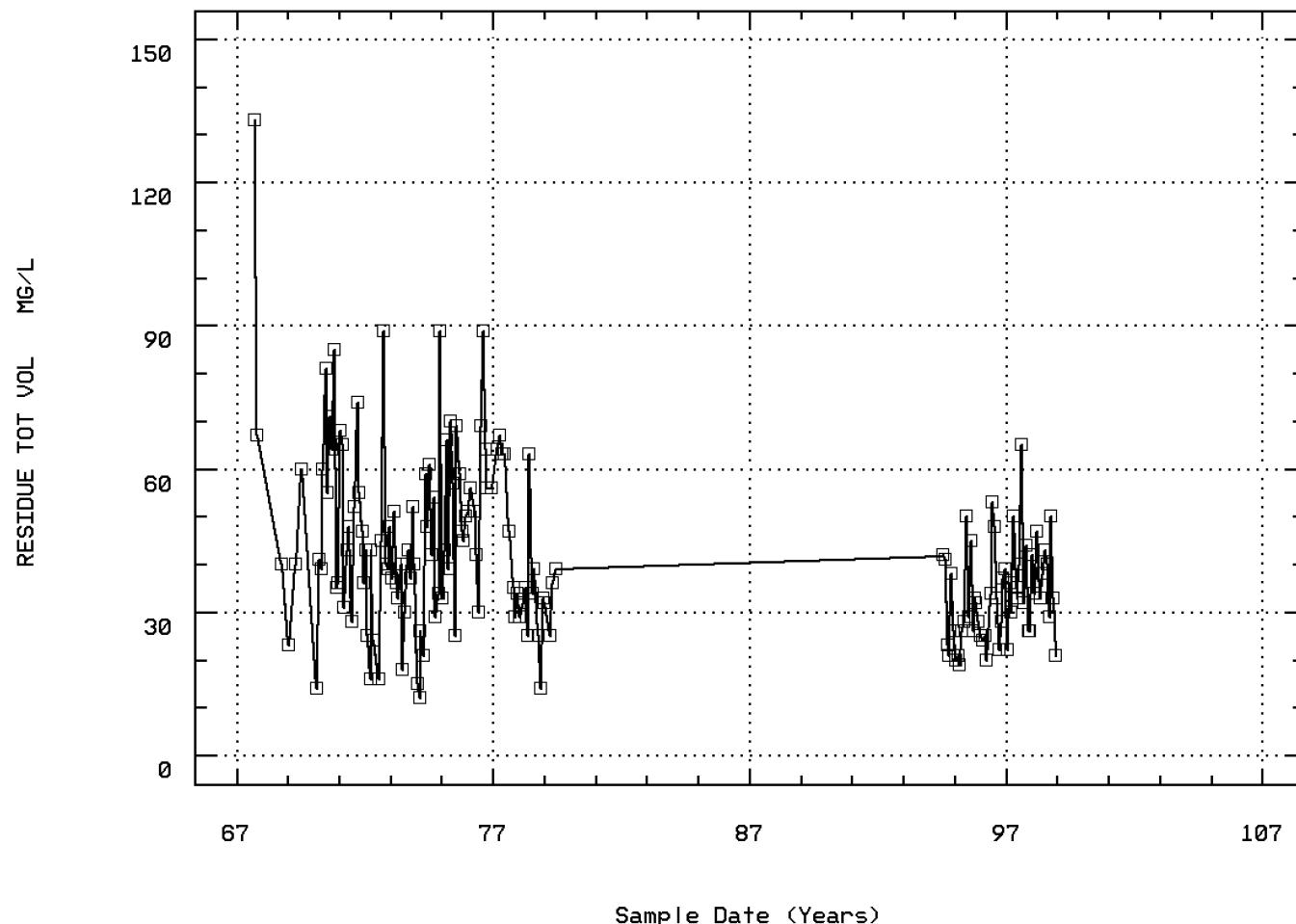
PH (STANDARD UNITS)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00505

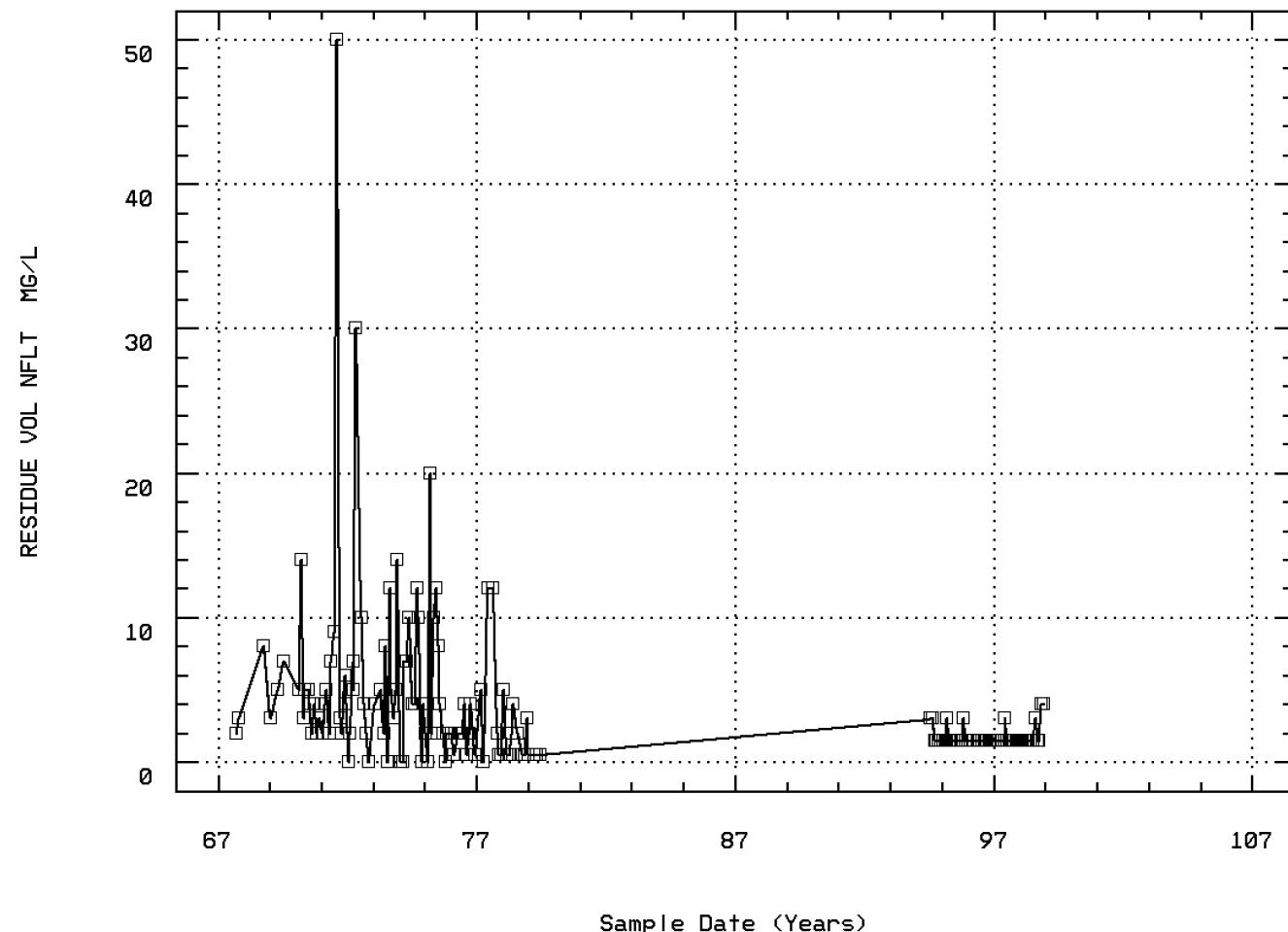
RESIDUE, TOTAL VOLATILE (MG/L)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00535

RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 156 BRIDGE

### Annual Analysis for 1967 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	2	20.85	20.85	21.7	20.	1.445	1.202	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	1	5.6	5.6	5.6	0.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	1	1.5	1.5	1.5	0.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	1	6.6	6.6	6.6	0.	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	1	6.6	6.6	6.6	0.	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	1	0.251	0.251	0.251	0.251	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	2	6.8	6.8	6.9	6.7	0.02	0.141	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	2	6.789	6.789	6.9	6.7	0.02	0.142	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	2	0.163	0.163	0.2	0.126	0.003	0.052	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	2	23.5	23.5	27.	20.	24.5	4.95	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	2	100.	100.	133.	67.	2178.	46.669	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	2	2.5	2.5	3.	2.	0.5	0.707	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	2	29.	29.	32.	26.	18.	4.243	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1968 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	5	23.3	21.88	26.7	14.4	22.297	4.722	**	**	**	**	
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	5	5.4	6.32	10.	5.	4.372	2.091	**	**	**	**	
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	1	3.3	3.3	3.3	3.3	0.	0.	**	**	**	**	
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	5	7.	6.7	7.	6.	0.2	0.447	**	**	**	**	
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	5	7.	6.49	7.	6.	0.255	0.505	**	**	**	**	
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	5	0.1	0.323	1.	0.1	0.152	0.39	**	**	**	**	
00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**	
00403	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**	
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	1	0.126	0.126	0.126	0.126	0.	0.	**	**	**	**	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	1	48.	48.	48.	48.	0.	0.	**	**	**	**	
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	1	156.	156.	156.	156.	0.	0.	**	**	**	**	
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	1	40.	40.	40.	40.	0.	0.	**	**	**	**	
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	1	8.	8.	8.	8.	0.	0.	**	**	**	**	
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	1	0.22	0.22	0.22	0.22	0.	0.	**	**	**	**	
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	1	## 0.005	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	1	0.21	0.21	0.21	0.21	0.	0.	**	**	**	**	
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	1	0.96	0.96	0.96	0.96	0.	0.	**	**	**	**	

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	3	21.1	16.667	25.6	3.3	139.063	11.793	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	3	9.3	8.433	11.6	4.4	13.523	3.677	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	3	3.	2.133	3.1	0.3	2.523	1.589	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	3	6.5	6.433	6.6	6.2	0.043	0.208	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	3	6.5	6.399	6.6	6.2	0.045	0.212	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	3	0.316	0.399	0.631	0.251	0.041	0.203	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	3	6.5	6.6	6.9	6.4	0.07	0.265	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	3	6.5	6.553	6.9	6.4	0.073	0.271	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	3	0.316	0.28	0.398	0.126	0.02	0.14	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	3	21.	22.667	29	18.	32.333	5.686	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	3	106.	113.	135.	98.	379.	19.468	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	3	40.	41.	60.	23.	343.	18.52	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	2	70.5	70.5	75.	66.	40.5	6.364	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	2	7.	7.	9.	5.	8.	2.828	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	3	5.	5.	7.	3.	4.	2.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	3	0.2	0.193	0.2	0.18	0.	0.012	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	3	0.01	0.022	0.05	0.005	0.001	0.025	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	3	0.27	0.26	0.42	0.09	0.027	0.165	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	3	1.099	1.013	1.5	0.44	0.286	0.535	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	17.2	14.636	22.2	4.4	51.977	7.209	4.4	5.6	21.1	22.1
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	7.4	7.536	12.	5.	5.377	2.319	5.08	5.5	9.8	11.64
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	8	2.4	2.25	3.2	1.4	0.314	0.561	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.609	7.6	5.6	0.235	0.485	5.74	6.5	6.8	7.48
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.346	7.6	5.6	0.311	0.558	5.74	6.5	6.8	7.48
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.316	0.451	2.512	0.025	0.484	0.696	0.04	0.158	0.316	2.11
00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	6	6.65	6.6	7.1	6.	0.188	0.434	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	6	6.647	6.424	7.1	6.	0.225	0.475	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	6	0.225	0.377	1.	0.079	0.133	0.365	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	6	16.5	16.667	33.	7.	85.067	9.223	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	11	127.	123.091	173.	91.	686.491	26.201	91.6	95.	141.	168.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	55.	52.818	85.	14.	477.964	21.862	18.2	36.	71.	84.2
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	71.	70.273	92.	35.	293.218	17.124	38.4	59.	88.	91.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	8.	10.273	21.	1.	40.618	6.373	1.8	6.	18.	20.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	11	4.	4.364	14.	1.	12.055	3.472	1.2	2.	5.	12.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	11	5.	5.909	17.	0.	27.691	5.262	0.2	2.	7.	16.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.16	0.172	0.4	0.05	0.011	0.104	0.052	0.093	0.228	0.385
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.01	0.013	0.03	0.005	0.	0.009	0.005	0.005	0.02	0.029
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.2	0.307	1.069	0.1	0.08	0.283	0.104	0.17	0.333	1.005
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.8	0.82	1.299	0.3	0.122	0.349	0.31	0.475	1.149	1.299
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	2 ##	125.	125.	200.	50.	11250.	106.066	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	2 ##	2.	2.	2.301	1.699	0.181	0.426	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			100.									
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	10	0.2	0.32	1.3	0.05	0.137	0.37	0.05	0.088	0.35	1.22
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	10	0.155	0.287	1.299	0.04	0.144	0.38	0.041	0.08	0.313	1.219

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	15.6	14.973	26.7	1.1	80.862	8.992	1.88	5.6	22.2	26.48
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	6.8	7.673	11.6	4.6	6.674	2.583	4.68	5	10.4	11.4
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	4	1.6	1.85	3.2	1.	0.89	0.943	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.7	6.59	6.8	5.3	0.208	0.456	5.44	6.7	6.8	6.8
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.7	6.175	6.8	5.3	0.399	0.632	5.44	6.7	6.8	6.8
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	10	0.2	0.668	5.012	0.158	2.329	1.526	0.158	0.158	0.2	4.531
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	11	120.	122.182	161.	95.	564.564	23.761	95.2	97.	136.	159.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	48.	49.727	74.	28.	225.618	15.021	28.6	36.	65.	72.8
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	69.	72.455	109.	48.	303.073	17.409	49.4	60.	86.	104.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	9.	14.182	65.	4.	301.964	17.377	4.2	6.	12.	55.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	11	4.	8.545	50.	2.	194.073	13.931	2.	2.	7.	41.8

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	11	3.	5.636	15.	1.	19.655	4.433	1.2	3.	10.	14.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.04	0.07	0.22	0.01	0.004	0.065	0.012	0.03	0.09	0.208
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.01	0.014	0.02	0.01	0.	0.005	0.01	0.01	0.02	0.02
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.19	0.204	0.58	0.01	0.031	0.177	0.013	0.04	0.33	0.54
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	11	0.5	0.5	0.8	0.3	0.024	0.155	0.3	0.4	0.6	0.78
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	11	100.	145.455	500.	50.	17727.273	133.144	50.	50.	200.	440.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	11	2.	2.036	2.699	1.699	0.111	0.333	1.699	1.699	2.301	2.619
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	108.687								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	11	0.2	0.177	0.4	0.05	0.012	0.11	0.05	0.05	0.2	0.38
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	11	0.12	0.132	0.3	0.02	0.009	0.097	0.022	0.04	0.17	0.298

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### Annual Analysis for 1972 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	12.2	13.482	27.8	2.2	63.662	7.979	2.64	7.2	21.1	26.58
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	10	9.15	9.27	13.4	4.8	11.311	3.363	4.86	5.7	12.85	13.36
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	2	1.7	1.7	2.2	1.2	0.5	0.707	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.527	7.	6.2	0.054	0.233	6.22	6.3	6.7	6.94
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.476	7.	6.2	0.057	0.239	6.22	6.3	6.7	6.94
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.316	0.334	0.631	0.1	0.026	0.161	0.12	0.2	0.501	0.605
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	11	87.	99.455	178.	67.	1155.473	33.992	67.2	77.	117.	170.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	40.	38.909	89.	16.	412.891	20.32	16.	24.	45.	80.8
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	52.	60.545	94.	28.	543.473	23.313	29.8	39.	89.	93.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	5.	14.7	80.	3.	553.344	23.523	3.1	4.	14.	74.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	11	2.	5.636	30.	0.	75.055	8.663	0.	1.	7.	26.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	11	3.	8.273	50.	0.	203.618	14.269	0.2	2.	10.	42.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.02	0.028	0.12	0.005	0.001	0.033	0.005	0.01	0.04	0.104
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.01	0.009	0.01	0.005	0.	0.002	0.005	0.005	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.17	0.147	0.26	0.01	0.007	0.085	0.01	0.1	0.19	0.26
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	11	0.5	0.518	1.	0.3	0.052	0.227	0.3	0.3	0.6	0.96
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	11	100.	104.545	300.	50.	6227.273	78.913	50.	50.	100.	280.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	11	2.	1.934	2.477	1.699	0.072	0.269	1.699	1.699	2.	2.442
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	85.883								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	11	0.1	0.095	0.2	0.05	0.003	0.057	0.05	0.05	0.1	0.2
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	11	0.07	0.078	0.15	0.02	0.002	0.047	0.022	0.03	0.13	0.146

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### Annual Analysis for 1973 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	12	17.8	15.658	27.2	6.1	57.363	7.574	6.28	8.075	21.55	26.54
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	12	8.7	8.5	14.2	4.8	7.975	2.824	4.8	6.2	10.85	13.3
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	2	2.	2.	2.	2.	0.	0	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.691	6.9	6.5	0.023	0.151	6.5	6.5	6.8	6.9
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.667	6.9	6.5	0.024	0.153	6.5	6.5	6.8	6.9
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.2	0.215	0.316	0.126	0.006	0.074	0.126	0.158	0.316	0.316
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	96.5	100.	224.	1.	2802.727	52.941	13.9	84.75	121.75	197.3
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	38.5	38.083	52.	18.	81.538	9.03	21.6	33.75	42.25	51.7
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	61.	70.667	184.	8.	1946.061	44.114	15.2	45.25	87.75	160.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	5.	10.833	48.	1.	186.697	13.664	1.3	3.25	18.25	40.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12	4.5	5.	14.	0.	19.091	4.369	0.3	1.25	7.25	13.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	11	2.	6.364	36.	0.	113.855	10.67	0.2	1.	8.	31.6

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### Annual Analysis for 1973 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.05	0.055	0.1	0.005	0.001	0.025	0.019	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.275	0.276	0.59	0.05	0.019	0.137	0.077	0.18	0.355	0.527
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.85	0.933	1.699	0.4	0.108	0.328	0.49	0.725	1.149	1.549
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	12 ##	50.	79.167	300.	50.	5208.333	72.169	50.	50.	87.5	240
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	12 ##	1.699	1.814	2.477	1.699	0.057	0.239	1.699	1.699	1.925	2.334
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			65.161								
70505	PHOSPHATE,TOTAL,COLORIMETRIC MÉTHOD (MG/L AS P)	02/11/70-06/14/79	12 ##	0.075	0.125	0.3	0.05	0.01	0.099	0.05	0.05	0.2	0.3
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	12	0.1	0.108	0.2	0.05	0.004	0.06	0.05	0.05	0.175	0.2

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### Annual Analysis for 1974 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	15.6	15.709	25.	5.6	54.375	7.374	5.92	7.8	23.9	24.88
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	7.2	7.773	14.	4.2	7.516	2.742	4.36	6.	9.	13.32
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.6	6.64	7.	6.2	0.085	0.291	6.21	6.45	7.	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.589	6.556	7.	6.2	0.093	0.305	6.21	6.45	7.	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	10	0.258	0.278	0.631	0.1	0.032	0.178	0.1	0.1	0.362	0.618
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	89.	92.75	126.	74.	219.659	14.821	74.9	80.5	104.	120.3
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	38.	40.833	89.	12.	507.424	22.526	12.9	22.25	57.75	80.6
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	57.5	55.5	73.	29.	140.091	11.836	33.2	48.25	64.75	70.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	8.	7.583	18.	0.	26.083	5.107	0.	3.75	10.	16.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12	4.	4.917	12.	0.	18.265	4.274	0.	0.25	9.25	11.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	12	2.	2.667	6.	0.	6.606	2.57	0.	0.25	6.	6.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.009
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.085	0.202	1.199	0.01	0.104	0.323	0.022	0.053	0.225	0.908
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.7	0.65	0.9	0.4	0.03	0.173	0.4	0.5	0.775	0.9
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	12 ##	50.	62.5	100.	50.	511.364	22.613	50.	50.	87.5	100.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	12 ##	1.699	1.774	2.	1.699	0.019	0.136	1.699	1.699	1.925	2.
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			59.46								
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	12	0.1	0.113	0.4	0.05	0.01	0.1	0.05	0.05	0.1	0.34
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	12 ##	0.05	0.083	0.3	0.05	0.005	0.072	0.05	0.05	0.1	0.24

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### Annual Analysis for 1975 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	13	17.2	16.1	25.6	1.1	67.067	8.189	2.42	9.45	23.85	25.36
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	13	5.2	6.692	12.	2.6	10.704	3.272	2.68	4.2	9.5	11.84
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	2	2.	2.	2.	2.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	13	6.5	6.538	7.	6.	0.086	0.293	6.	6.5	6.75	6.96
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	13	6.5	6.439	7.	6.	0.097	0.311	6.	6.5	6.75	6.96
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	13	0.316	0.364	1.	0.1	0.086	0.293	0.11	0.179	0.316	1.
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	92.	103.417	204.	58.	1533.356	39.158	63.4	81.25	113.	187.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	48.5	50.25	70.	25.	205.841	14.347	27.4	40.	64.25	69.7
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	45.5	53.167	147.	18.	1141.424	33.785	21.6	34.	61.	127.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	8.	17.	72.	0.	434.545	20.846	0.6	2.	29.5	59.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12	2.	5.333	20.	0.	36.606	6.05	0.	2.	9.5	17.6
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	12	5.	11.833	60.	0.	302.879	17.403	0.	2.	17.5	50.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.05	0.062	0.1	0.05	0.001	0.023	0.05	0.05	0.088	0.1

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### Annual Analysis for 1975 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.007	0.02	0.005	0.	0.004	0.005	0.005	0.005	0.017
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.105	0.17	0.68	0.025	0.033	0.181	0.036	0.083	0.195	0.578
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.45	0.558	1.199	0.3	0.066	0.257	0.33	0.4	0.75	1.079
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	1	12.	12.	12.	12.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	13 ##	50.	61.538	200.	50.	1730.769	41.603	50.	50.	50.	140.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	13 ##	1.699	1.745	2.301	1.699	0.028	0.167	1.699	1.699	1.699	2.06
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			55.627								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	12	0.1	0.146	0.3	0.05	0.008	0.092	0.05	0.063	0.2	0.3
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	12	0.05	0.068	0.17	0.02	0.001	0.039	0.026	0.05	0.08	0.149

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	10	17.25	16.56	23.9	5.6	39.736	6.304	5.87	11.225	22.475	23.84
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	10	7.6	7.2	11.8	3.2	8.756	2.959	3.24	4.5	9.65	11.6
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.85	6.82	7.5	6.5	0.113	0.336	6.5	6.5	7.	7.45
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.825	6.722	7.5	6.5	0.124	0.351	6.5	6.5	7.	7.45
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	10	0.15	0.19	0.316	0.032	0.013	0.116	0.038	0.1	0.316	0.316
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	10	96.	103.4	157.	73.	653.378	25.561	73.8	87.75	116.5	154.9
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	10	56.	56.4	89.	30.	249.156	15.785	31.2	48.75	65.25	87.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	10	42.	47.	72.	30.	208.667	14.445	30.4	34.75	60.5	71.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	2.	3.55	10.	0.5	11.414	3.378	0.5	0.5	6.5	9.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10	2.	1.95	4.	0.5	1.636	1.279	0.5	0.5	2.5	4.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	10	0.5	1.75	6.	0.	4.681	2.163	0.	0.	4.	5.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.025	0.072	0.36	0.025	0.012	0.11	0.025	0.025	0.059	0.34
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.5	0.52	1.	0.3	0.044	0.21	0.3	0.375	0.625	0.97
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	10 ##	50.	60.	100.	50.	444.444	21.082	50.	50.	62.5	100.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	10 ##	1.699	1.759	2.	1.699	0.016	0.127	1.699	1.699	1.774	2.
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			57.435								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	9 ##	0.05	0.078	0.2	0.05	0.003	0.051	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	9	0.03	0.048	0.12	0.01	0.002	0.04	0.01	0.025	0.08	0.12

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	8	16.5	15.813	29.	0.5	65.424	8.089	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	8	6.7	6.838	11.	1.9	10.377	3.221	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	8	6.9	6.875	7.5	6.	0.251	0.501	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	8	6.889	6.616	7.5	6.	0.327	0.572	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	8	0.129	0.242	1.	0.032	0.103	0.32	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	8	112.5	112.375	147.	83.	348.268	18.662	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	8	55.	50.25	67.	29.	250.5	15.827	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	8	57.	62.125	100.	42.	330.982	18.193	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	8	4.5	9.25	35.	0.5	147.857	12.16	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	8	1.5	4.125	12.	0.	26.054	5.104	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	8	2.5	5.25	23	0.	59.286	7.7	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	8 ##	0.075	0.075	0.1	0.05	0.001	0.027	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	8 ##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	4 ##	0.048	0.058	0.11	0.025	0.002	0.041	**	**	**	**

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### Annual Analysis for 1977 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	8	0.7	0.613	0.9	0.2	0.064	0.253	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	8 ##	50.	256.25	1500.	50.	255312.5	505.285	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	8 ##	1.699	1.996	3.176	1.699	0.275	0.525	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				99.197								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/11/70-06/14/79	8 ##	0.05	0.087	0.3	0.05	0.008	0.088	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	8	0.035	0.068	0.28	0.02	0.008	0.088	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	15.5	15.364	27.5	0.	82.555	9.086	1.	6.	24.	27.2
03300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	7.6	7.645	13.	3.6	8.931	2.988	3.74	4.6	10.4	12.6
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.727	7.5	6.1	0.142	0.377	6.18	6.5	7.	7.4
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.596	7.5	6.1	0.161	0.401	6.18	6.5	7.	7.4
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.2	0.254	0.794	0.032	0.043	0.208	0.045	0.1	0.316	0.699
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	10	87.	92.6	151.	68.	558.933	23.642	68.8	77.5	103.25	146.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	10	32.5	32.9	63.	14.	160.767	12.679	15.1	25.	36.	60.6
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	10	51.5	59.7	119.	27.	758.233	27.536	28.4	42.5	75.	116.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	3.5	4.5	20.	0.5	34.833	5.902	0.5	0.5	5.5	18.7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10	1.5	1.9	5.	0.5	2.656	1.63	0.5	0.5	3.25	4.9
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	10 ##	1.25	2.85	15.	0.5	19.781	4.448	0.5	0.5	3.25	13.9
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.006	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.35	0.38	0.6	0.2	0.015	0.123	0.21	0.3	0.5	0.59
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	10 ##	75.	95.	300.	50.	5805.556	76.194	50.	50.	100.	280.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	10 ##	1.849	1.897	2.477	1.699	0.064	0.253	1.699	1.699	2.	2.429
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				78.922								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/11/70-06/14/79	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	10	0.05	0.049	0.15	0.005	0.002	0.045	0.005	0.009	0.068	0.144

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### Annual Analysis for 1979 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	3	20.	15.667	21.	6.	70.333	8.386	**	**	**	**
03300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	4	8.8	8.6	10.2	6.6	2.453	1.566	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.75	6.75	7.1	6.4	0.123	0.351	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.682	6.651	7.1	6.4	0.136	0.369	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	4	0.208	0.223	0.398	0.079	0.025	0.158	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	4	77.	74.	85.	57.	166.667	12.91	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	4	34.	33.	39.	25.	36.667	6.055	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	4	46.	41.	51.	21.	183.333	13.54	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	4 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	4 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	4	0.45	0.425	0.5	0.3	0.009	0.096	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	4 ##	50.	62.5	100.	50.	625.	25.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	4 ##	1.699	1.774	2.	1.699	0.023	0.151	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				59.46								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/11/70-06/14/79	4 ##	0.05	0.063	0.1	0.05	0.001	0.025	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	4	0.035	0.03	0.04	0.01	0.	0.014	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	7	12.9	15.7	25.3	4.9	56.057	7.487	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/19/94-12/14/98	6	8.8	8.417	9.7	6.1	1.55	1.245	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/18/94-12/14/98	2	130.	130.	130.	0.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/94-12/14/98	6	109.	114.	138.	94.	318.4	17.844	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	7	4.6	5.186	8.9	2.9	4.445	2.108	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	6	1.3	1.483	2.5	1.	0.322	0.567	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	07/19/94-12/14/98	6	32.	32.667	46.	21.	155.867	12.485	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	7	6.11	6.181	6.55	5.77	0.069	0.262	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	7	6.11	6.115	6.55	5.77	0.074	0.272	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	7	0.776	0.767	1.698	0.282	0.218	0.467	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	6	6.6	6.617	7.2	6.1	0.126	0.354	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	6	6.6	6.505	7.2	6.1	0.141	0.375	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	6	0.251	0.313	0.794	0.063	0.063	0.251	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	6	20.5	21.	32.	13.	47.6	6.899	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	6	97.	97.167	108.	83.	84.967	9.218	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	6	32.	31.833	42.	21.	90.967	9.538	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	6	65.5	65.333	77.	54.	63.067	7.941	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	6	5.5	5.417	9.	1.5	6.642	2.577	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	6##	1.5	2.	3.	1.5	0.6	0.775	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	6	3.5	3.75	6.	1.5	2.575	1.605	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	6##	0.02	0.032	0.06	0.02	0.	0.018	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	6##	0.005	0.013	0.03	0.005	0.	0.013	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	6##	0.02	0.027	0.06	0.02	0.	0.016	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	6	0.6	0.6	0.8	0.4	0.036	0.19	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/94-12/14/98	6	0.105	0.105	0.14	0.06	0.001	0.033	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	6	27.	27.	34.	20.	23.6	4.858	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	6	16.	16.833	24.	11.	30.967	5.565	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	07/19/94-12/14/98	6	8.5	7.833	12.	3.	15.767	3.971	**	**	**	**
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	6	505.	1500.	5400.	20.	4436760.	2106.362	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	6	2.577	2.633	3.732	1.301	0.79	0.889	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			429.67									
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	6	0.085	0.085	0.12	0.05	0.001	0.027	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1995 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	12	14.85	15.008	27.5	1.1	63.588	7.974	2.6	9.325	20.85	27.14
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/19/94-12/14/98	12	7.95	9.692	24.	3.6	29.363	5.419	4.26	5.95	12.05	20.91
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/18/94-12/14/98	9	151.	146.	178.	116.	506.75	22.511	116.	126.5	166.	178.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/94-12/14/98	12	145.	144.5	226.	113.	921.909	30.363	113.6	121.	150.5	208.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	12	5.7	6.15	12.7	2.5	9.654	3.107	2.59	3.425	8.075	11.92
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	11	2.	1.609	3.5	0.5	0.829	0.91	0.5	0.5	2.	3.2
00340	COD, 25N K2CR2O7 MG/L	07/19/94-12/14/98	12	27.	26.25	37.	16	47.841	6.917	16	20.25	30	36.7
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.33	6.292	6.73	5.74	0.076	0.275	5.764	6.218	6.45	6.652
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.33	6.2	6.73	5.74	0.085	0.291	5.764	6.217	6.45	6.652
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.468	0.631	1.82	0.186	0.252	0.502	0.232	0.355	0.606	1.728

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### Annual Analysis for 1995 - Station RICH0130

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00403 PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	12	6.65	6.633	7.	6.2	0.077	0.277	6.23	6.4	6.9	7.
00403 CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	12	6.647	6.555	7.	6.2	0.084	0.289	6.23	6.4	6.9	7.
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.225	0.279	0.631	0.1	0.03	0.173	0.1	0.126	0.398	0.592
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	22.	22.	42.	8.	129.636	11.386	8.6	13.	30.5	41.4
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	104.	103.833	127.	81.	117.061	10.819	85.8	97.5	107.75	122.8
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	28.	29.75	50.	19.	89.114	9.44	19.3	22.25	32.75	48.5
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	72.	74.083	106.	58.	186.083	13.641	58.3	62.5	79.75	100.6
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	4.	5.125	15.	1.5	12.097	3.478	1.95	3.	6.	12.6
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12 ##	1.5	1.75	3.	1.5	0.341	0.584	1.5	1.5	1.5	3.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	12	3.	3.375	12.	1.5	8.506	2.916	1.5	1.5	4.	9.6
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.02	0.094	0.7	0.02	0.037	0.193	0.02	0.02	0.075	0.52
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.01	0.013	0.05	0.005	0.	0.013	0.005	0.005	0.018	0.041
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.08	0.087	0.24	0.02	0.004	0.064	0.02	0.028	0.118	0.21
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.5	0.533	0.8	0.2	0.022	0.15	0.26	0.5	0.6	0.77
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/19/94-12/14/98	12	0.085	0.083	0.11	0.03	0.	0.02	0.042	0.08	0.098	0.107
00900 HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	31.	30.75	42.	20.	65.295	8.081	20.3	22.5	39.5	41.4
00940 CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	12	16.5	19.167	49.	13.	95.606	9.778	13.3	14.25	18.75	41.2
00945 SULFATE, TOTAL (MG/L AS SO4)	07/19/94-12/14/98	12	10.5	10.75	22.	2.	37.841	6.151	2.3	5.5	16.25	20.5
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	12	565.	2014.5	16000.	9.	20387562.091	4515.259	12.3	46.25	1472.5	12250.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	12	2.748	2.516	4.204	0.954	0.922	0.96	1.058	1.665	3.147	4.006
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				327.776								
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	12	0.06	0.114	0.7	0.02	0.034	0.185	0.029	0.053	0.078	0.517

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### Annual Analysis for 1996 - Station RICH0130

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	12	14.35	13.425	26.4	1.3	74.404	8.626	1.96	4.875	22.25	25.53
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/19/94-12/14/98	12	8.05	7.7	10.	4.6	3.836	1.959	4.66	5.725	9.625	9.97
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/18/94-12/14/98	12	166.5	162.167	235.	105.	1482.515	38.503	107.1	127.5	188.5	225.1
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/94-12/14/98	12	154.5	153.083	225.	102.	1208.992	34.771	103.2	126.75	176.75	213.3
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	12	6.85	6.867	11.4	3.1	8.35	2.89	3.19	4.15	9.625	11.07
00310 BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	12	1.	1.125	2.	0.5	0.46	0.678	0.5	0.5	2.	2.
00340 COD, 25N K2CR207 MG/L	07/19/94-12/14/98	12	26.	25.833	40.	18.	40.152	6.337	18.3	19.5	29.	37.6
00400 PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.235	6.3	7.04	5.92	0.113	0.336	5.926	6.04	6.545	6.893
00400 CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.208	6.202	7.04	5.92	0.124	0.352	5.926	6.04	6.545	6.893
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.62	0.628	1.202	0.091	0.143	0.378	0.148	0.285	0.913	1.186
00403 PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	12	6.8	6.9	7.8	6.6	0.111	0.333	6.6	6.7	7.075	7.59
00403 CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	12	6.8	6.819	7.8	6.6	0.118	0.343	6.6	6.7	7.075	7.59
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.158	0.152	0.251	0.016	0.005	0.073	0.035	0.085	0.2	0.251
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	19.	24.75	48.	11.	163.114	12.772	11.3	15.25	38.75	45.9
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	112.5	114.	144.	85.	391.818	19.794	87.7	97.5	135.5	143.1
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	30.5	32.333	53.	20.	108.788	10.43	20.6	24.25	38.5	51.5
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	84.	81.667	116.	55.	321.697	17.936	55.6	64.5	94.	110.6
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	4.	3.875	7.	1.5	1.733	1.316	1.95	3.	4.	6.4
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12 ##	1.5	1.5	1.5	1.5	0.	0.	1.5	1.5	1.5	1.5
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	12	3.	2.792	5.	1.5	0.93	0.964	1.5	1.875	3.	4.4
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.02	0.03	0.05	0.02	0.	0.013	0.02	0.02	0.04	0.05
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.007	0.02	0.005	0.	0.005	0.005	0.005	0.009	0.017
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.12	0.128	0.3	0.02	0.005	0.072	0.026	0.087	0.165	0.264
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.55	0.567	0.8	0.3	0.028	0.167	0.33	0.425	0.75	0.8
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/19/94-12/14/98	12	0.075	0.078	0.12	0.04	0.001	0.027	0.043	0.053	0.108	0.117
00900 HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	32.	33.583	50.	21.	82.447	9.08	21.3	25.25	39.75	48.5
00940 CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	12	22.	23.083	52.	12.	107.356	10.361	12.6	17.	25.5	45.1
00945 SULFATE, TOTAL (MG/L AS SO4)	07/19/94-12/14/98	12	9.	8.	15.	2.5	20.636	4.543	2.5	2.5	11.75	14.4
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	12	68.	83.667	270.	9.	6971.152	83.493	9.	11.75	124.5	252.

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### Annual Analysis for 1996 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	12	1.833	1.68	2.431	0.954	0.278	0.527	0.954	1.041	2.083	2.399
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	47.917								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	12	0.045	0.059	0.11	0.03	0.001	0.028	0.03	0.04	0.08	0.107

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### Annual Analysis for 1997 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	13.8	13.218	26.7	5.2	46.724	6.835	5.26	7.	16.	25.76
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/19/94-12/14/98	12	8.4	8.583	13.8	3.9	10.922	3.305	4.2	5.425	10.85	13.74
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/18/94-12/14/98	11	170.	163.818	247.	128.	1125.964	33.555	128.2	131.	175.	233.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/94-12/14/98	12	150.5	156.417	227.	126.	745.174	27.298	126.9	136.5	170.25	211.4
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	11	7.2	7.036	10.3	2.6	5.071	2.252	3.18	5.7	9.1	10.22
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	12	1.	1.375	2.	0.5	0.324	0.569	0.65	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	07/19/94-12/14/98	12	19.5	20.833	29.	12.	24.152	4.914	13.2	18.	25.25	28.4
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.1	6.219	6.7	5.52	0.138	0.372	5.594	5.98	6.57	6.69
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.1	6.071	6.7	5.52	0.162	0.403	5.594	5.98	6.57	6.69
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.794	0.849	3.02	0.2	0.659	0.812	0.204	0.269	1.047	2.674
00403	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	12	6.8	6.758	7.2	6.3	0.081	0.284	6.33	6.5	6.975	7.17
00403	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	12	6.8	6.674	7.2	6.3	0.089	0.298	6.33	6.5	6.975	7.17
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.158	0.212	0.501	0.063	0.019	0.139	0.068	0.106	0.316	0.47
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	20.	21.333	42.	6.	125.152	11.187	6.6	14.	31.5	40.2
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	104.5	109.833	177.	78.	568.697	23.847	83.4	98.5	115.	160.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	34.	36.583	65.	22.	142.811	11.95	23.2	27.	43.	60.5
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	73.	73.25	133.	46.	491.295	22.165	47.5	57.5	77.75	118.3
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	4.	4.292	9.	1.5	3.566	1.888	1.95	3.	5.	8.1
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12 ##	1.5	1.625	3.	1.5	0.188	0.433	1.5	1.5	2.55	
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	12 ##	1.5	2.542	6.	1.5	2.203	1.484	1.5	1.5	3.75	5.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.02	0.028	0.06	0.02	0.	0.016	0.02	0.02	0.035	0.06
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.009
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.12	0.133	0.27	0.02	0.007	0.081	0.02	0.083	0.18	0.267
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.6	0.55	0.8	0.4	0.014	0.117	0.4	0.425	0.6	0.74
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/19/94-12/14/98	12	0.07	0.073	0.13	0.04	0.001	0.029	0.04	0.045	0.09	0.124
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	37.	37.167	55.	30.	49.061	7.004	30.	30.75	39.75	51.1
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	12	18.5	19.333	31.	13.	26.788	5.176	13.6	15.25	20.75	29.8
00945	SULFATE, TOTAL (MG/L AS SO4)	07/19/94-12/14/98	12	10.	16.208	52.	2.5	212.157	14.566	3.55	6.	21.75	46.9
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	11	210.	763.909	5400.	40.	2592557.091	1610.142	40.	45.	330.	4660.
31615	LOG FECAL COLIFORM,MPN,EC MED 44.5C (TUBE 31614)	07/19/94-12/14/98	11	2.322	2.28	3.732	1.602	0.49	0.7	1.602	1.653	2.519	3.632
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	190.374								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	12	0.05	0.057	0.1	0.03	0.001	0.023	0.03	0.04	0.068	0.1

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	12	17.95	16.667	27.3	4.2	66.659	8.164	5.07	9.175	25.2	27.09
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/19/94-12/14/98	12	12.25	12.367	23.5	4.4	30.739	5.544	5.12	8.	15.95	22.24
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/18/94-12/14/98	12	127.	122.083	161.	81.	851.538	29.181	82.5	88.75	149.75	158.3
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/19/94-12/14/98	12	130.5	119.083	147.	69.	682.083	26.117	75.	91.75	140.5	145.8
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-12/14/98	12	5.35	6.408	12.2	1.9	14.621	3.824	1.99	2.825	10.5	11.93
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	12 ##	1.	1.5	3.	1.	0.455	0.674	1.	1.	2.	2.7
00340	COD, .25N K2CR2O7 MG/L	07/19/94-12/14/98	12	24.	21.417	27.	10.	34.265	5.854	11.2	16.	26.	27.
00400	PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.36	6.349	6.97	5.72	0.099	0.315	5.804	6.198	6.51	6.871

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1998 - Station RICH0130

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400 CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.358	6.242	6.97	5.72	0.112	0.335	5.804	6.198	6.51	6.871
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.438	0.573	1.905	0.107	0.229	0.479	0.144	0.309	0.635	1.634
00403 PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	12	6.4	6.458	6.7	6.3	0.021	0.144	6.3	6.325	6.575	6.7
00403 CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	12	6.4	6.438	6.7	6.3	0.021	0.146	6.3	6.325	6.575	6.7
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.398	0.365	0.501	0.2	0.012	0.11	0.2	0.267	0.475	0.501
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	21.5	22.833	39.	10.	110.697	10.521	10.	11.5	33.5	38.4
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	104.	107.833	210.	71.	1289.242	35.906	72.5	86.75	115.	183.6
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	38.	37.273	50.	21.	70.018	8.368	22.6	33.	43.	49.4
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	74.	73.455	160.	37.	1071.073	32.727	38.	53.	79.	143.8
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	6.	6.167	11.	4.	5.061	2.25	4.	4.	7.75	10.4
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12##	1.5	2.042	4.	1.5	1.021	1.01	1.5	1.5	2.625	4.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	12##	2.25	3.167	8.	1.5	5.106	2.26	1.5	1.5	5.25	7.4
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12##	0.02	0.022	0.04	0.02	0.	0.006	0.02	0.02	0.02	0.034
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.08	0.083	0.18	0.02	0.004	0.061	0.02	0.02	0.14	0.177
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.6	0.617	1.	0.4	0.031	0.175	0.4	0.5	0.7	0.94
00665 PHOSPHORUS, TOTAL (MG/L AS P)	07/19/94-12/14/98	12	0.095	0.094	0.17	0.04	0.001	0.037	0.043	0.063	0.118	0.158
00900 HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	12	31.5	31.417	45.	23.	54.992	7.416	23.	24.25	35.	44.1
00940 CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	12	13.	12.25	20.	6.	18.386	4.288	6.	9.	15.	18.8
00945 SULFATE, TOTAL (MG/L AS SO4)	07/19/94-12/14/98	12	7.5	8.958	20.	2.5	38.157	6.177	2.5	3.125	15.75	18.8
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	12	330.	1697.	16000.	9.	20407099.818	4517.422	12.3	76.25	767.5	11530.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/19/94-12/14/98	12	2.519	2.444	4.204	0.954	0.742	0.862	1.058	1.798	2.884	3.855
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)				GEOMETRIC MEAN = 278.19								
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	12	0.08	0.078	0.14	0.03	0.001	0.032	0.033	0.05	0.098	0.131

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	52	23.3	22.813	29.	13.3	13.401	3.661	17.92	20.375	25.6	27.27
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	35	5.2	5.311	10.	1.9	2.422	1.556	3.28	4.6	6.	6.96
00310p	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	30	1.65	1.653	3.	0.3	0.571	0.756	0.55	1.	2.	2.94
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	50	6.505	6.548	7.6	6.	0.098	0.313	6.101	6.3	6.7	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	50	6.505	6.448	7.6	6.	0.108	0.329	6.101	6.3	6.7	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	50	0.313	0.356	1.	0.025	0.06	0.245	0.1	0.2	0.501	0.793
00403p	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	20	6.85	6.815	7.2	6.4	0.064	0.254	6.41	6.625	7.	7.19
00403p	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	20	6.847	6.745	7.2	6.4	0.07	0.264	6.41	6.625	7.	7.19
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	20	0.142	0.18	0.398	0.063	0.011	0.106	0.065	0.1	0.238	0.39
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	20	30.5	31.1	48.	15.	78.832	8.879	20.1	23.5	39.75	41.9
00500p	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	47	110.	117.447	210.	58.	845.687	29.081	82.4	97.	135.	156.2
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	49	43.	48.347	133.	16.	447.523	21.155	25.	32.5	60.5	71.
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	46	69.5	70.326	160.	33.	492.314	22.188	44.5	55.5	80.25	94.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	45	6.	10.111	65.	0.5	140.953	11.872	3.6	4.	10.	20.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	49	3.	4.663	50.	0.	53.962	7.346	1.5	1.5	4.	10.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	46	3.	5.239	36.	0.	40.819	6.389	1.	2.	6.	14.3
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	47	0.05	0.076	0.7	0.01	0.011	0.103	0.02	0.03	0.09	0.116
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	47##	0.005	0.01	0.05	0.005	0.	0.011	0.005	0.005	0.01	0.022
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	43	0.11	0.158	1.069	0.02	0.034	0.184	0.02	0.05	0.19	0.306
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	47	0.6	0.686	1.699	0.3	0.088	0.296	0.4	0.5	0.8	1.
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	18	34.5	34.389	45.	24.	35.075	5.922	25.8	29.5	39.25	42.3
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	17	15.	14.824	24.	10.	11.154	3.34	10.8	12.5	16.	20.
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	3##	5.	6.667	10.	5.	8.333	2.887	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	27##	50.	98.148	500.	50.	11438.746	106.952	50.	50.	100.	300.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-06/14/79	27##	1.699	1.861	2.699	1.699	0.086	0.293	1.699	1.699	2.	2.477
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				72.534								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	28	0.2	0.214	1.3	0.05	0.056	0.237	0.05	0.1	0.275	0.4
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	44	0.1	0.154	1.299	0.01	0.044	0.209	0.05	0.07	0.145	0.295
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	4##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	68	7.2	8.137	19.	0.	20.073	4.48	2.11	5.	11.8	15.01
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	41	10.4	9.88	14.2	3.8	6.315	2.513	5.6	8.15	11.6	13.
00310p	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	27	2.	1.556	3.	0.5	0.599	0.774	0.5	1.	2.	2.6
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	67	6.5	6.446	7.5	5.3	0.195	0.441	5.81	6.1	6.7	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	67	6.5	6.215	7.5	5.3	0.249	0.499	5.81	6.1	6.7	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	67	0.316	0.61	5.012	0.032	0.643	0.802	0.1	0.2	0.794	1.55
00403p	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	28	6.5	6.5	6.9	6.1	0.044	0.211	6.2	6.325	6.6	6.81
00403p	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	28	6.5	6.453	6.9	6.1	0.047	0.216	6.2	6.325	6.6	6.81
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	28	0.316	0.353	0.794	0.126	0.027	0.166	0.155	0.251	0.475	0.631
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	28	13.5	15.286	35.	6.	44.878	6.699	8.	10.	19.5	22.1
00500p	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	66	98.	100.242	177.	1.	608.063	24.659	80.4	87.75	108.5	127.
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	66	34.	36.682	89.	12.	233.82	15.291	20.7	26.	44.25	56.
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	65	65.	65.662	133.	28.	463.821	21.537	38.6	50.	77.	92.4
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	65	4.	5.638	30.	0.	29.309	5.414	0.5	2.	7.5	12.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	66	1.5	2.212	14.	0.	4.754	2.18	0.	1.	3.	5.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	64	3.	3.586	28.	0.	19.465	4.412	0.	1.	4.75	8.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	64##	0.04	0.054	0.4	0.005	0.004	0.063	0.02	0.02	0.05	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	65##	0.005	0.007	0.03	0.005	0.	0.005	0.005	0.005	0.01	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	57	0.14	0.174	1.199	0.01	0.034	0.184	0.02	0.05	0.235	0.362
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	65	0.5	0.498	1.199	0.2	0.042	0.204	0.3	0.4	0.6	0.7
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	25	29.	30.2	55.	20.	81.167	9.009	20.6	22.5	36.	43.2
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	25	19.	20.92	52.	6.	113.493	10.653	9.6	15.5	23.	38.2

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	9 ##	5.	8.222	20.	5.	29.694	5.449	5.	5.	12.	20.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	38 ##	50.	118.421	1500.	50.	55597.44	235.791	50.	50.	100.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	38 ##	1.699	1.88	3.176	1.699	0.094	0.306	1.699	1.699	2.	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				75.934								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	39 ##	0.05	0.094	0.3	0.05	0.006	0.076	0.05	0.05	0.1	0.2
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	64	0.05	0.056	0.25	0.005	0.002	0.047	0.02	0.03	0.06	0.105
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	9 ##	0.25	0.239	0.25	0.15	0.001	0.033	0.15	0.25	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

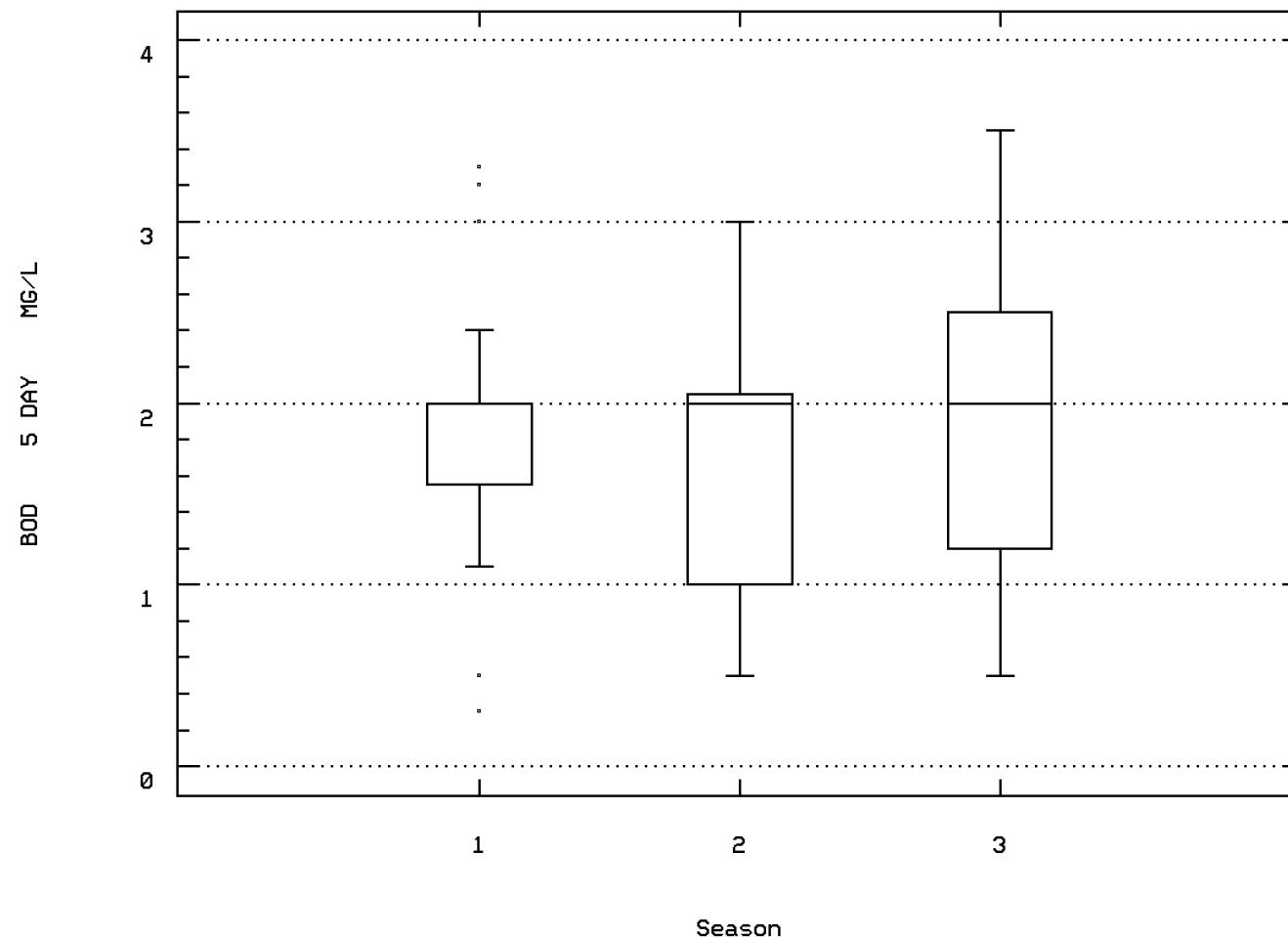
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0130

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	45	18.9	18.002	26.4	8.9	19.064	4.366	11.02	15.2	21.05	24.16
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	34	7.65	7.388	12.	3.2	4.442	2.108	4.6	5.8	8.6	10.3
00310p	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-12/14/98	20	1.5	1.7	3.5	0.5	0.788	0.888	0.55	1.	2.3	3.19
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	45	6.64	6.638	7.5	5.98	0.12	0.346	6.152	6.425	6.935	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	45	6.64	6.513	7.5	5.98	0.136	0.368	6.152	6.425	6.935	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	45	0.229	0.307	1.047	0.032	0.059	0.242	0.1	0.117	0.376	0.711
00403p	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	18	6.75	6.794	7.8	6.	0.142	0.376	6.27	6.65	7.	7.17
00403p	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	18	6.747	6.649	7.8	6.	0.164	0.405	6.27	6.65	7.	7.17
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	18	0.179	0.225	1.	0.016	0.05	0.223	0.073	0.1	0.229	0.551
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	18	22.	23.889	48.	7.	108.105	10.397	13.3	17.25	28.5	42.6
00500p	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	46	98.5	101.5	224.	44.	1048.122	32.375	70.1	82.25	112.25	137.2
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	45	39.	42.022	81.	16.	236.795	15.388	22.8	31.5	52.	64.2
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	45	54.	60.044	184.	8.	963.907	31.047	28.2	42.5	73.	87.4
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	46	5.	9.913	80.	0.5	256.937	16.029	1.2	2.75	9.	24.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	46	2.	4.543	30.	0.	32.52	5.703	0.5	1.5	5.5	12.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	07/16/69-12/14/98	45	2.	5.522	60.	0.	134.34	11.591	0.5	1.	4.	11.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	46 ##	0.05	0.06	0.22	0.01	0.002	0.05	0.02	0.02	0.05	0.126
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	46 ##	0.005	0.008	0.02	0.005	0.	0.004	0.005	0.005	0.01	0.013
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	40	0.1	0.132	0.68	0.01	0.017	0.132	0.021	0.031	0.178	0.28
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	46	0.6	0.67	1.299	0.3	0.054	0.232	0.4	0.5	0.8	1.
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	13	34.	33.923	50.	23.	55.91	7.477	23.4	27.5	39.	46.
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	13	17.	17.231	26.	9.	31.526	5.615	9.	13.	23.	24.8
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	8	6.	11.938	50.	1.5	249.46	15.794	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	28 ##	50.	78.571	300.	50.	3042.328	55.157	50.	50.	100.	110.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-06/14/79	28 ##	1.699	1.834	2.477	1.699	0.044	0.209	1.699	1.699	2.	2.03
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C				68.277								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/11/70-06/14/79	32	0.075	0.106	0.5	0.05	0.009	0.095	0.05	0.05	0.1	0.2
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/11/70-12/14/98	45	0.06	0.082	0.5	0.01	0.006	0.075	0.03	0.05	0.1	0.154
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	8 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0130 Parameter Code: 00310

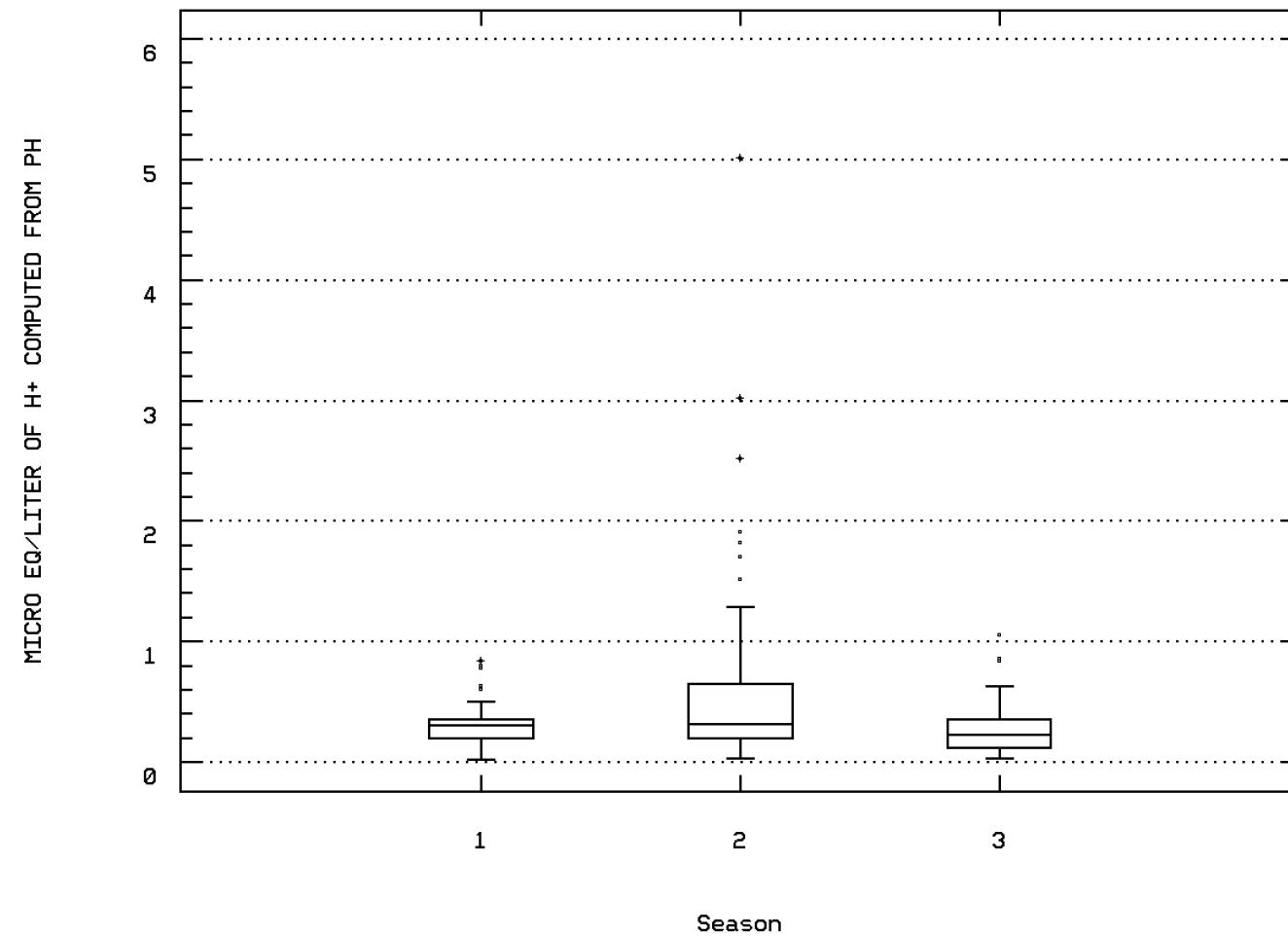
BOD, 5 DAY, 20 DEG C



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00400

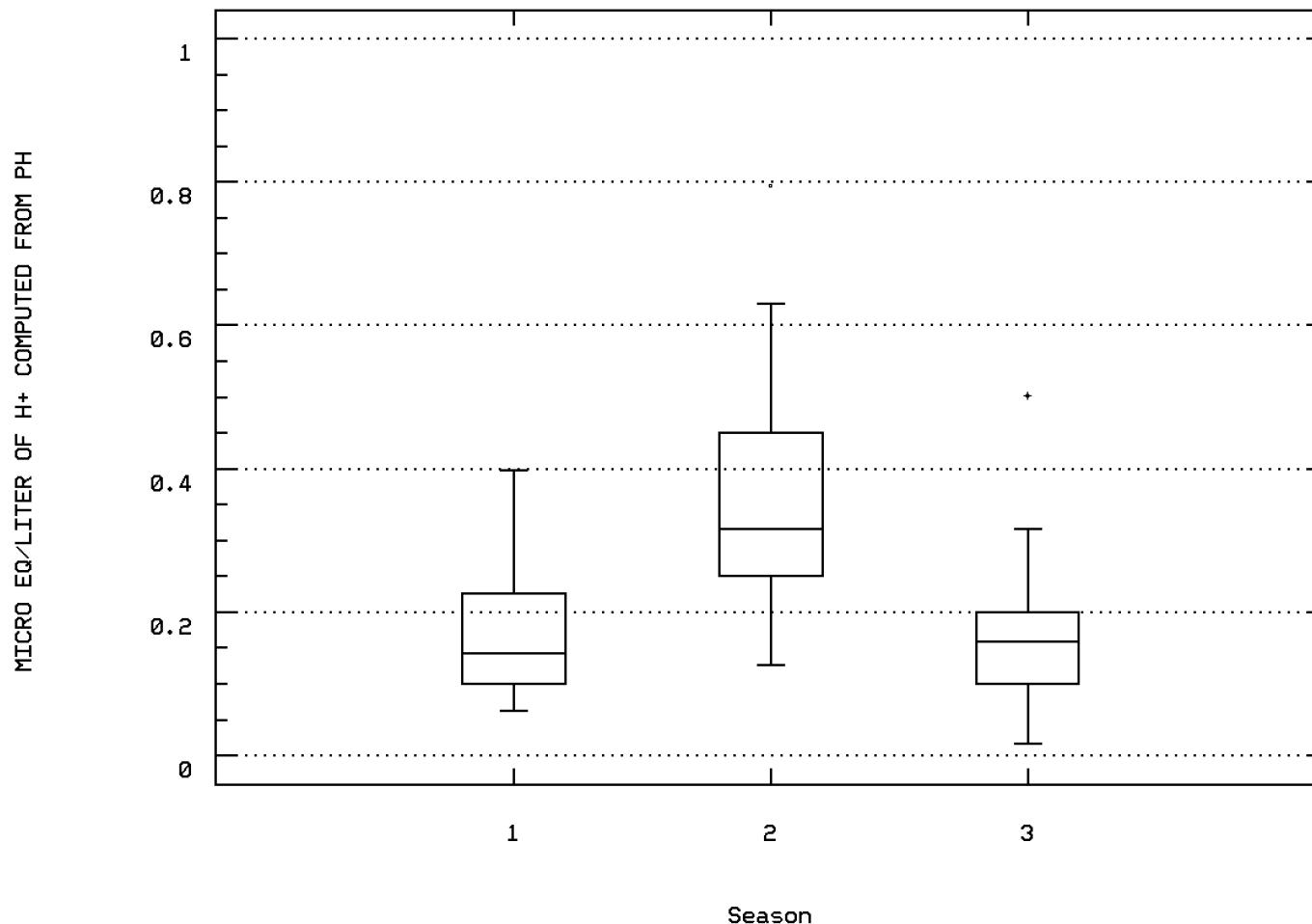
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 156 BRIDGE

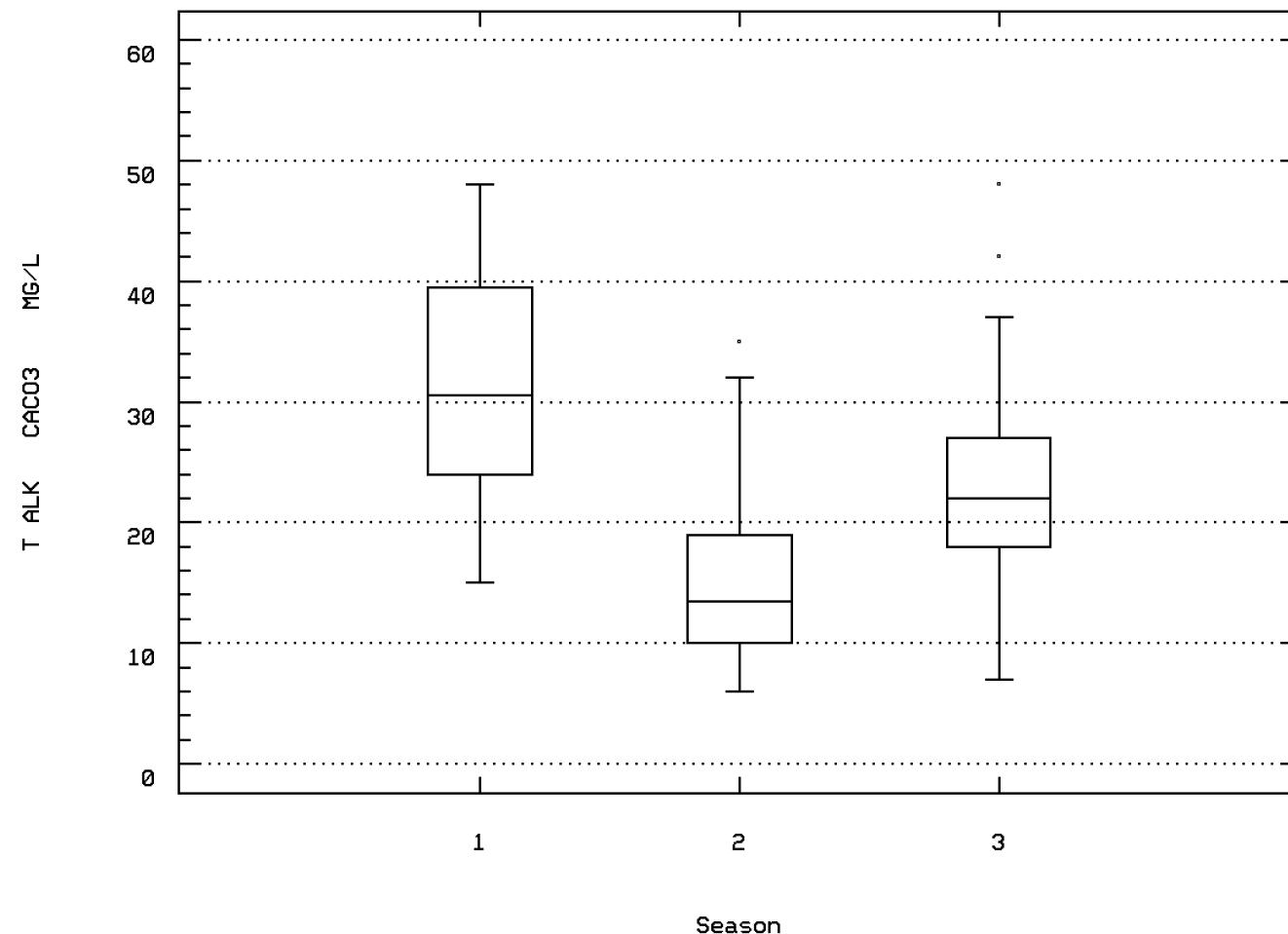
Station: RICH0130 Parameter Code: 00403

MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



Station: RICH0130 Parameter Code: 00410

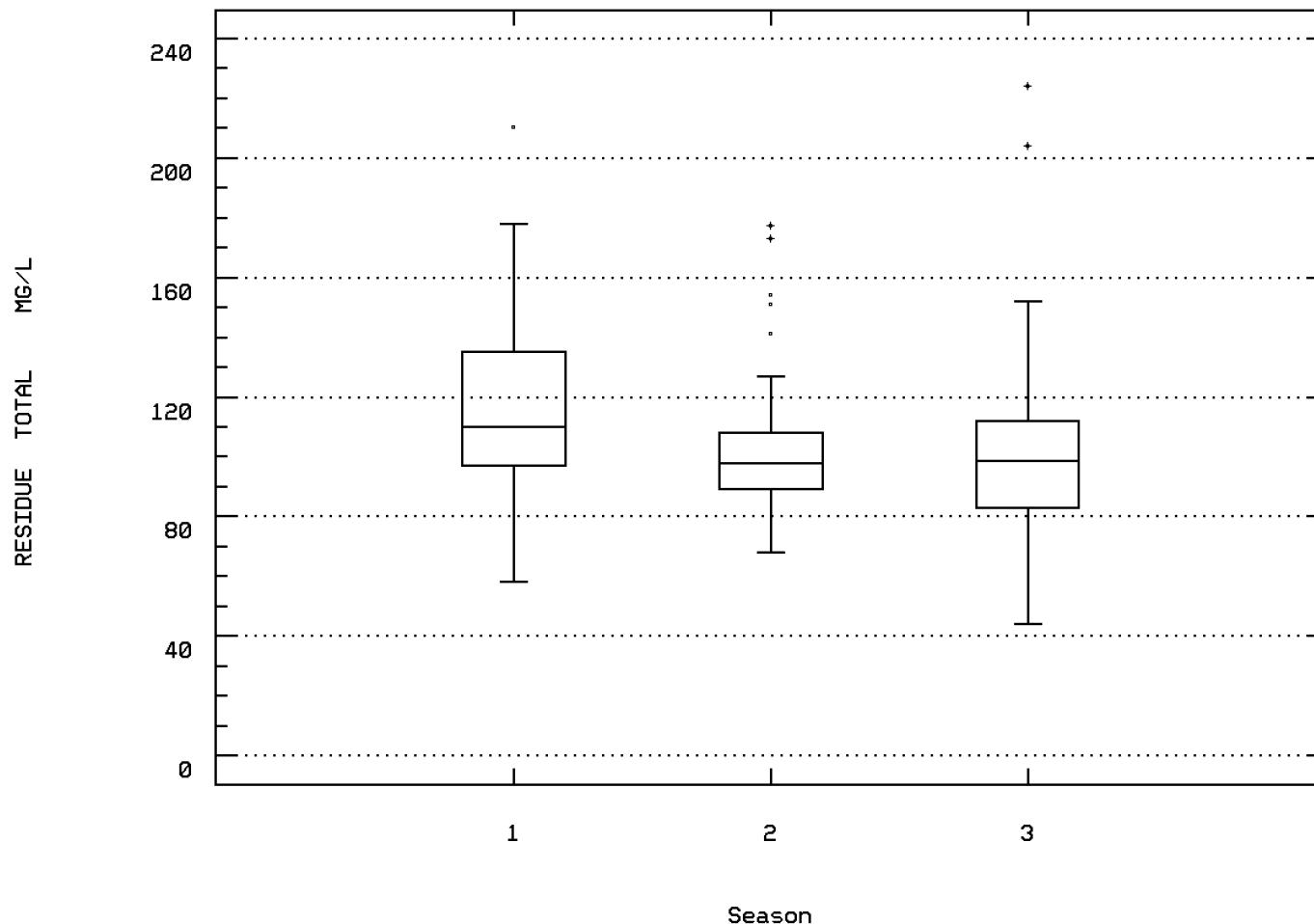
ALKALINITY, TOTAL (MG/L AS CACO<sub>3</sub>)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00500

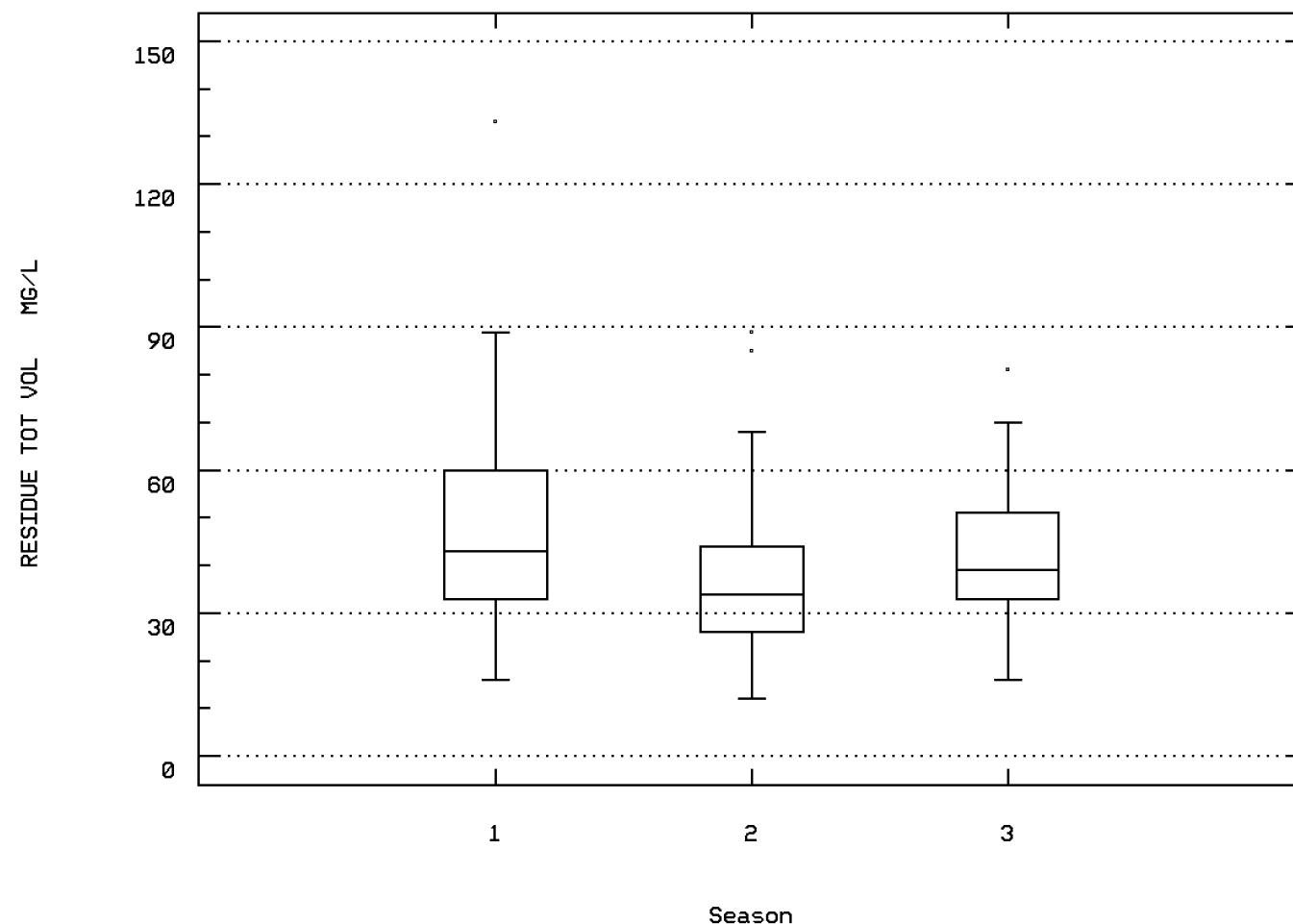
RESIDUE, TOTAL (MG/L)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00505

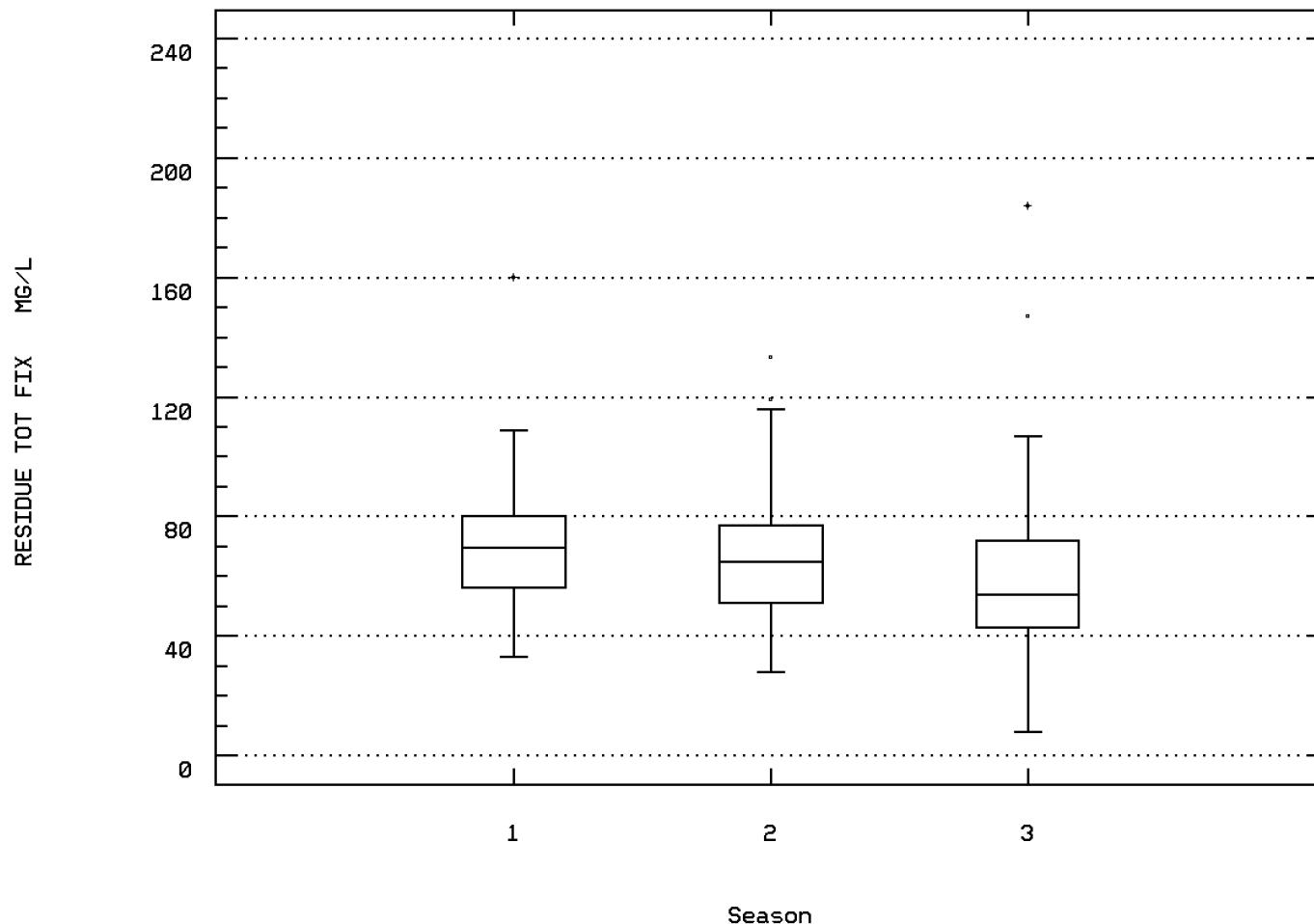
RESIDUE, TOTAL VOLATILE (MG/L)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00510

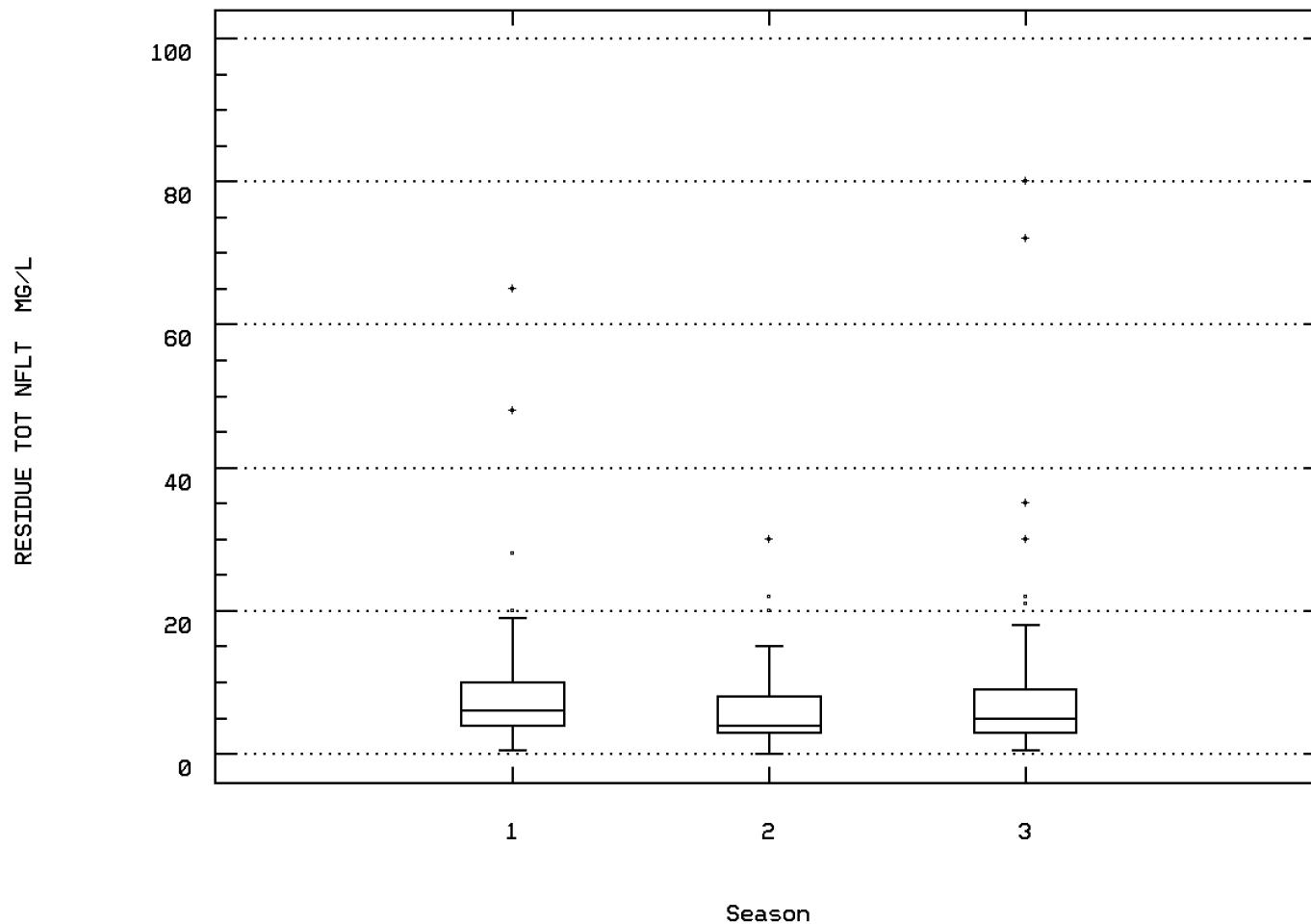
RESIDUE, TOTAL FIXED (MG/L)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00530

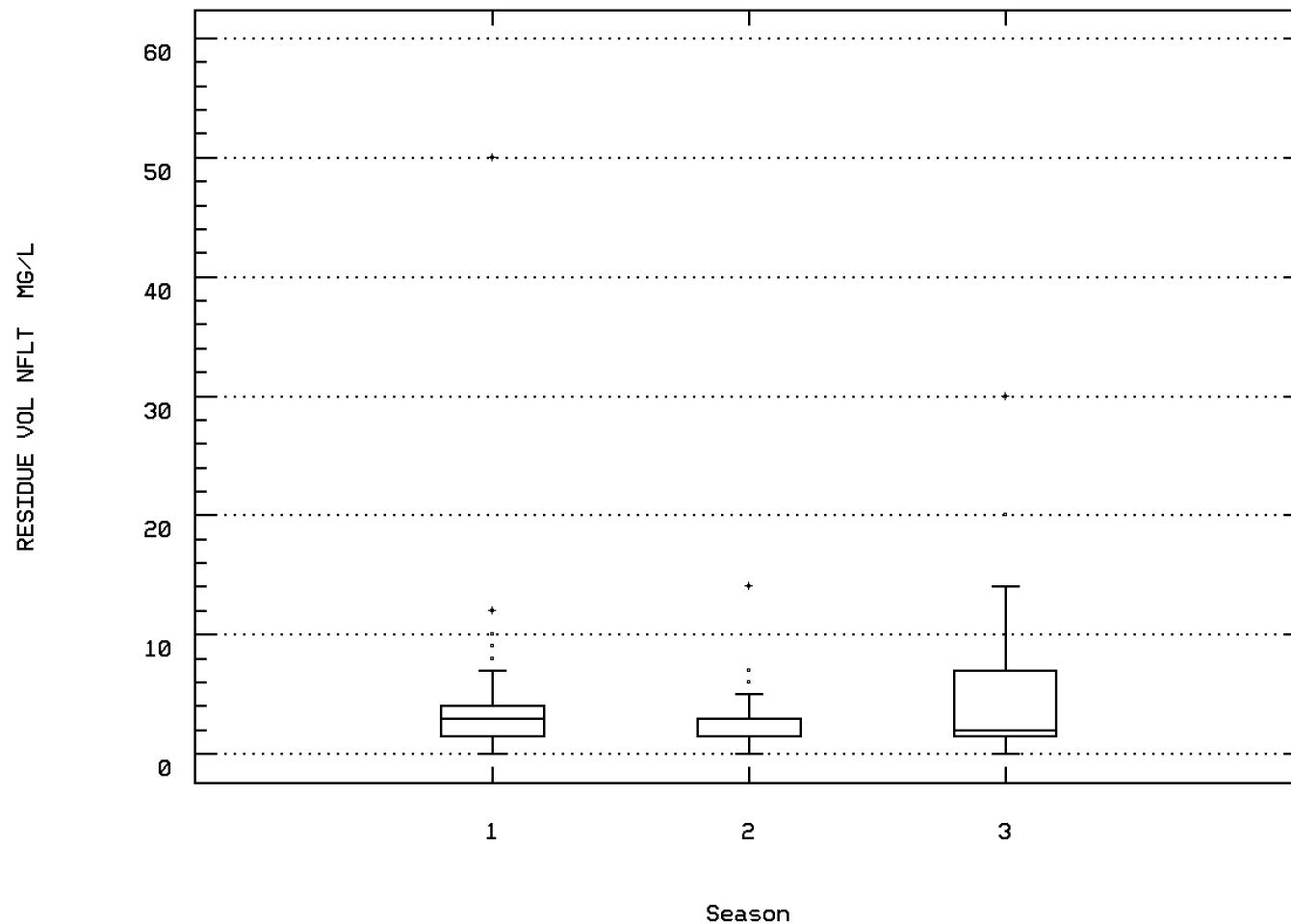
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00535

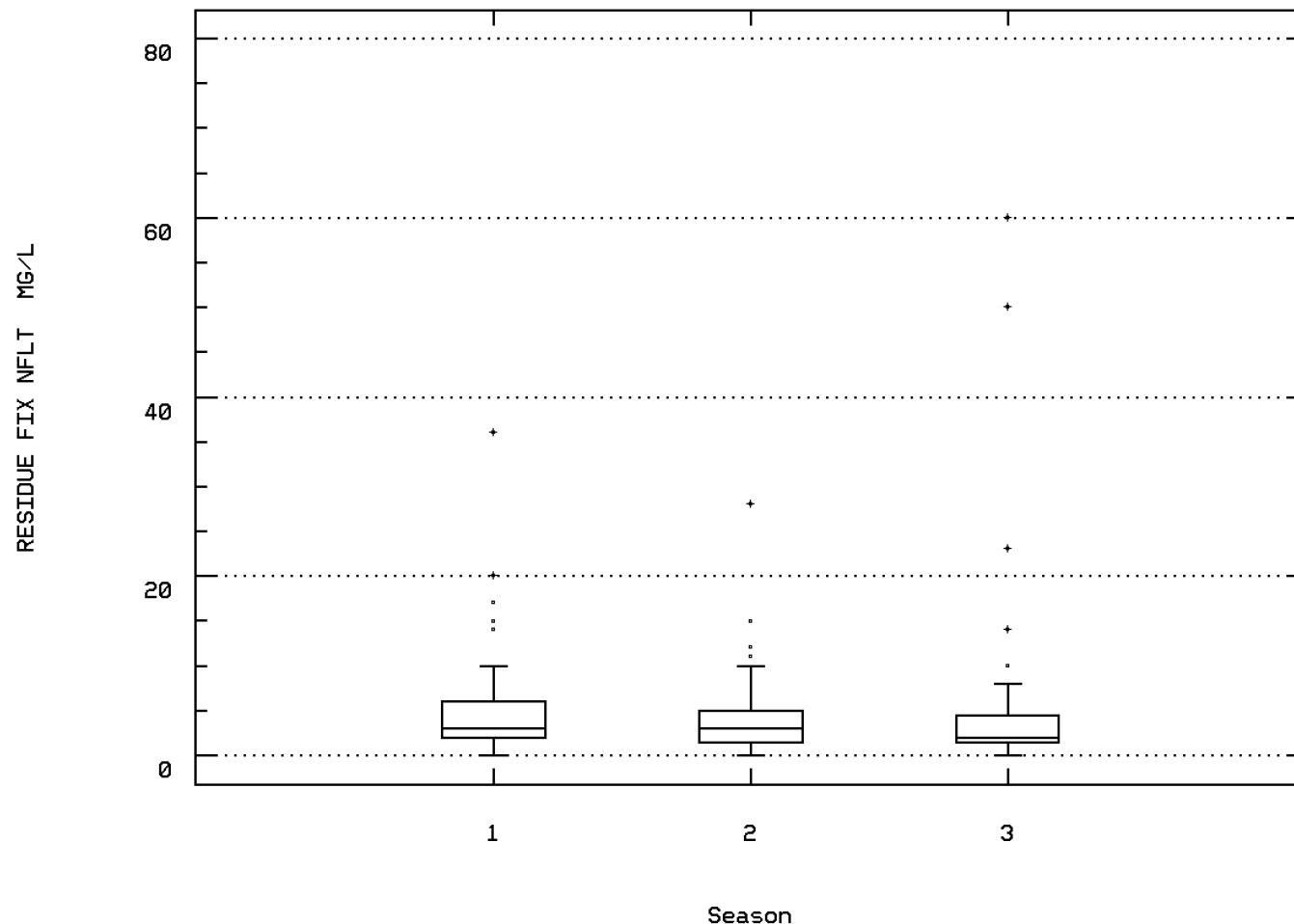
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00540

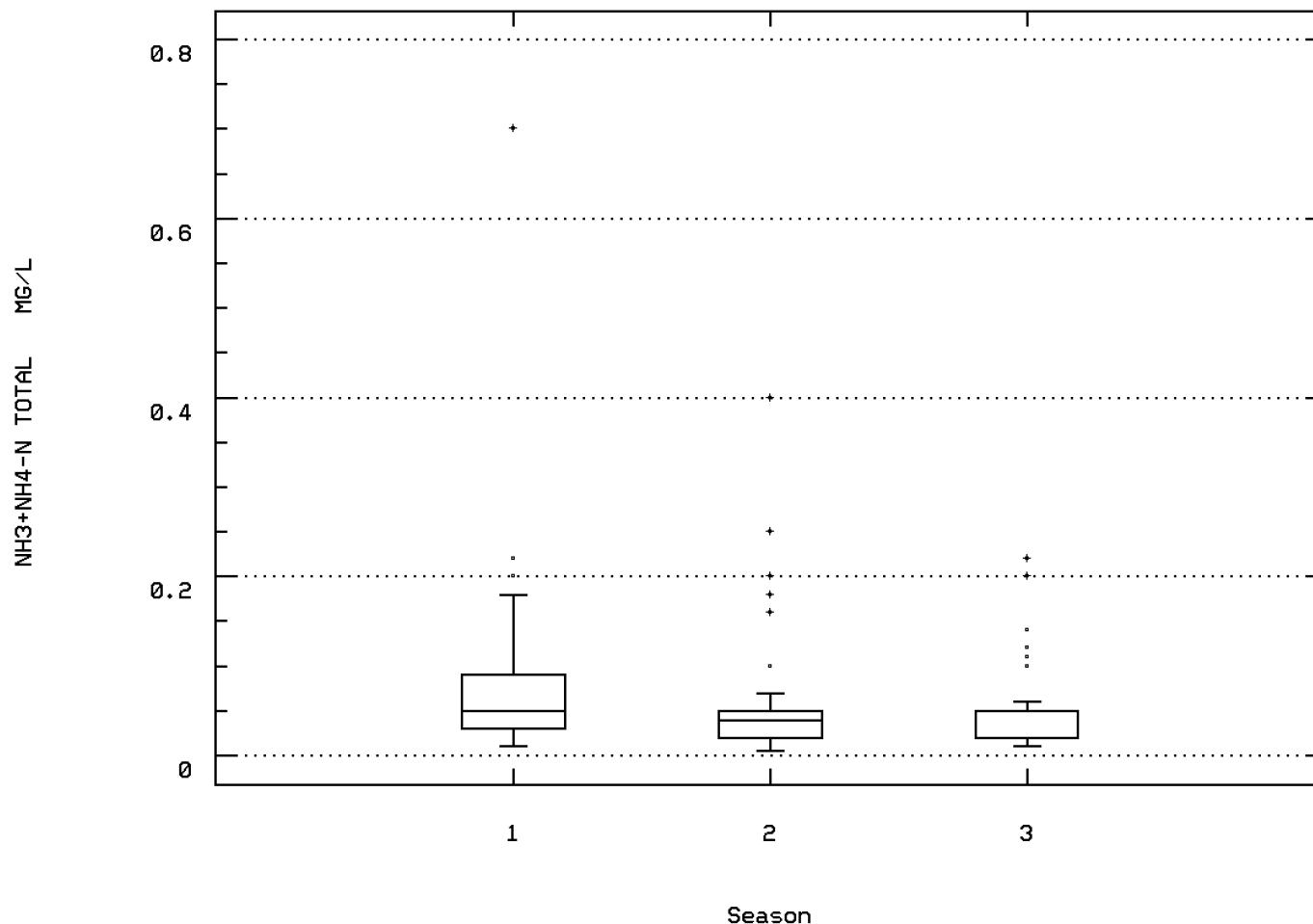
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00610

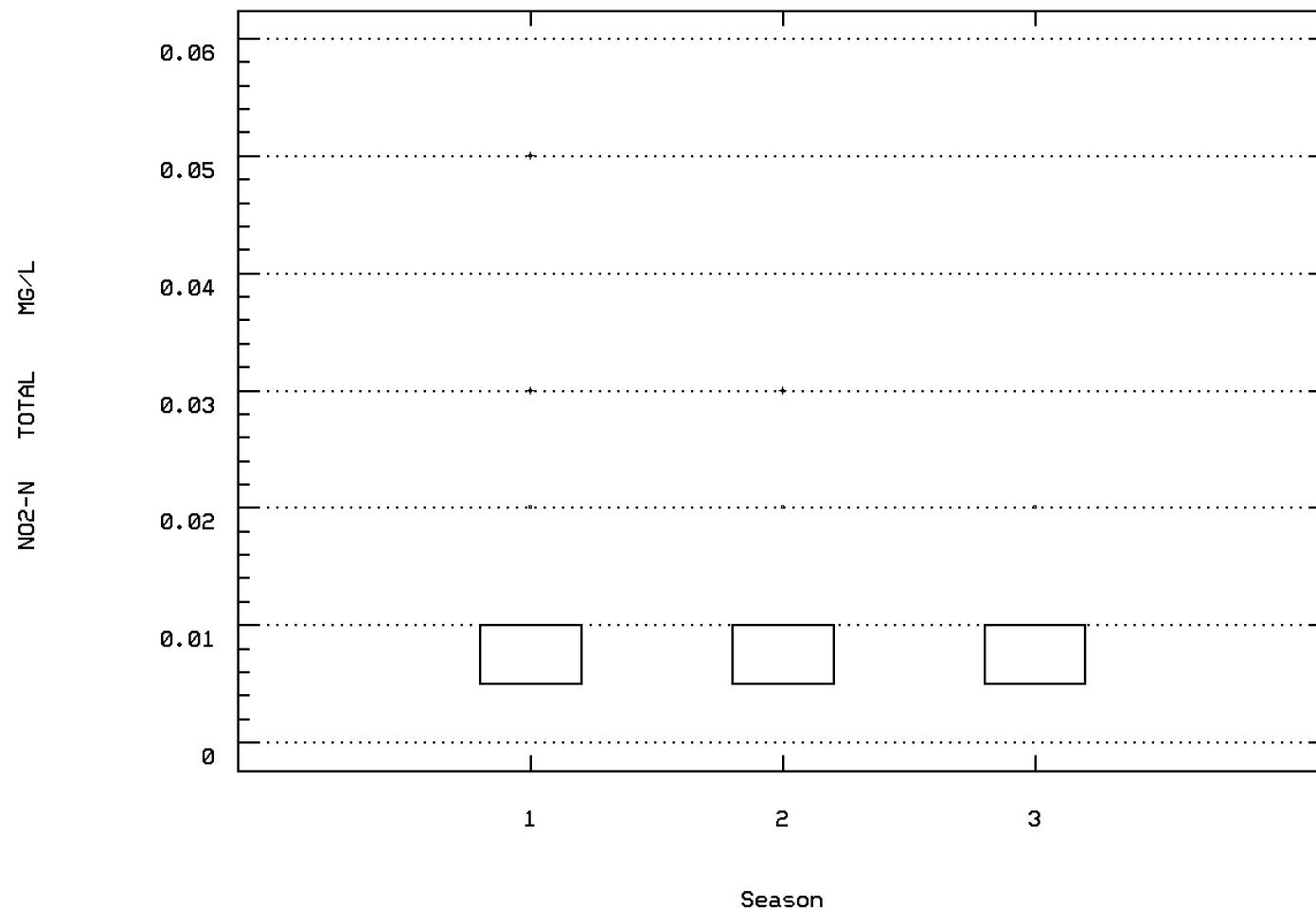
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00615

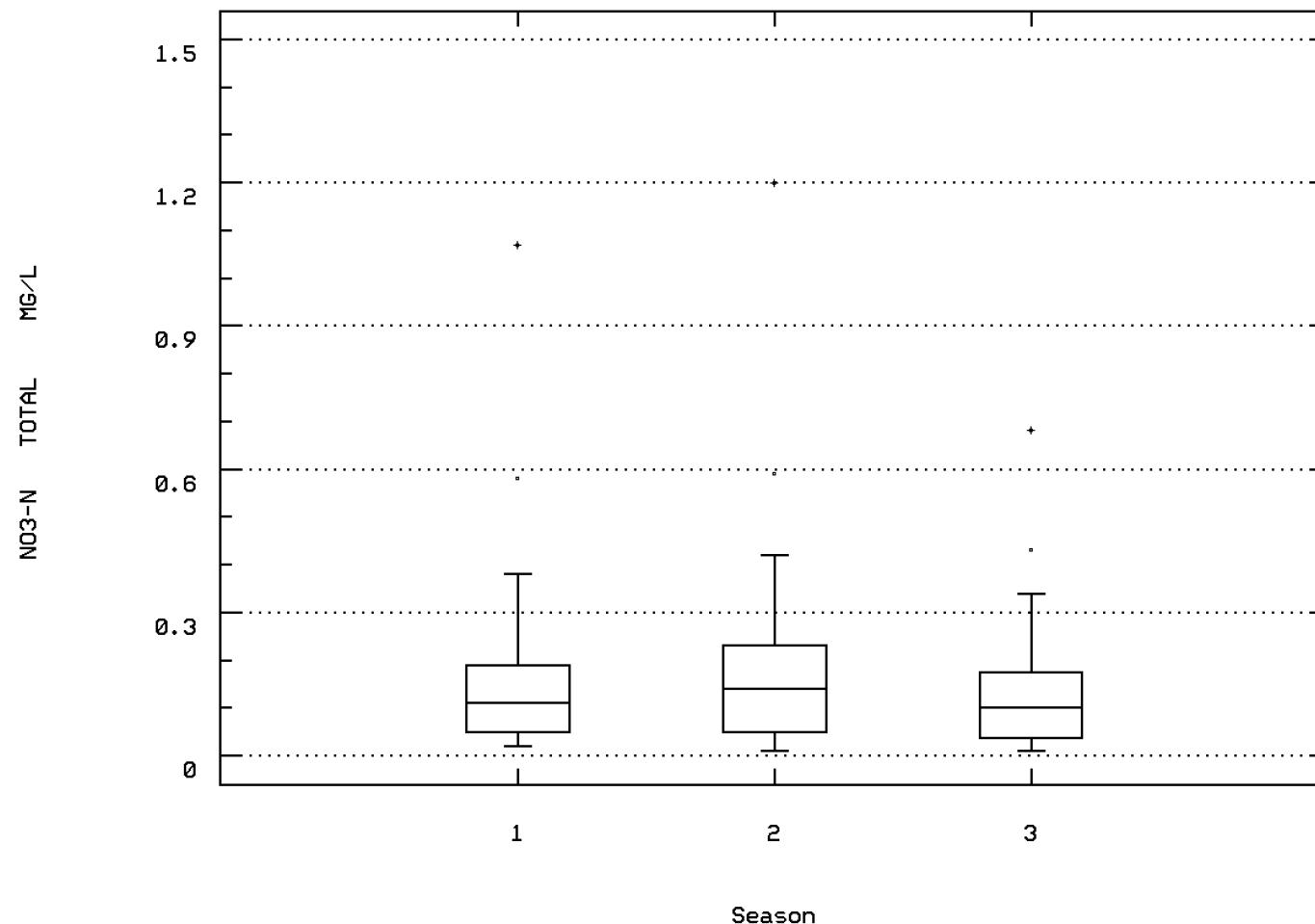
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00620

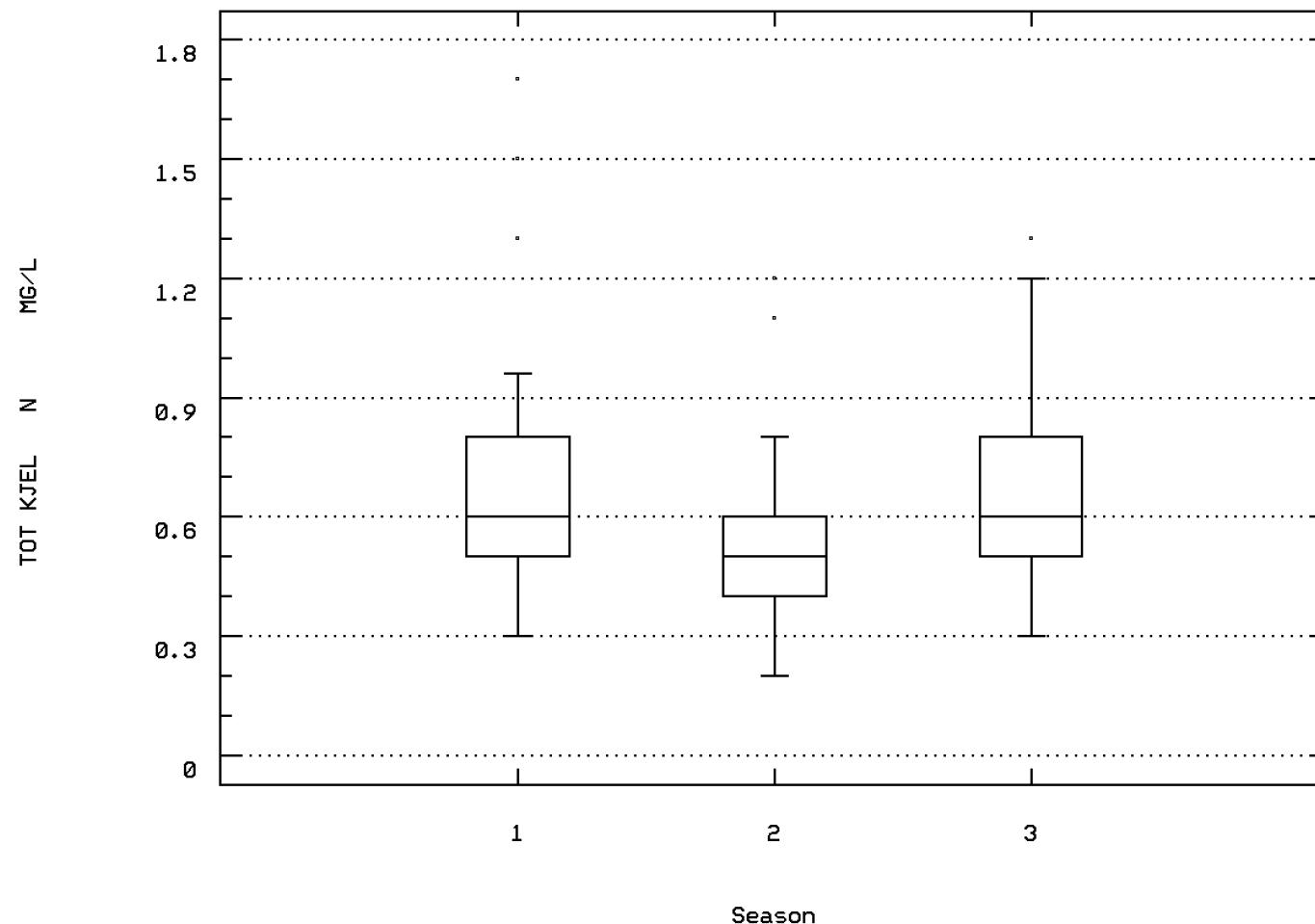
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00625

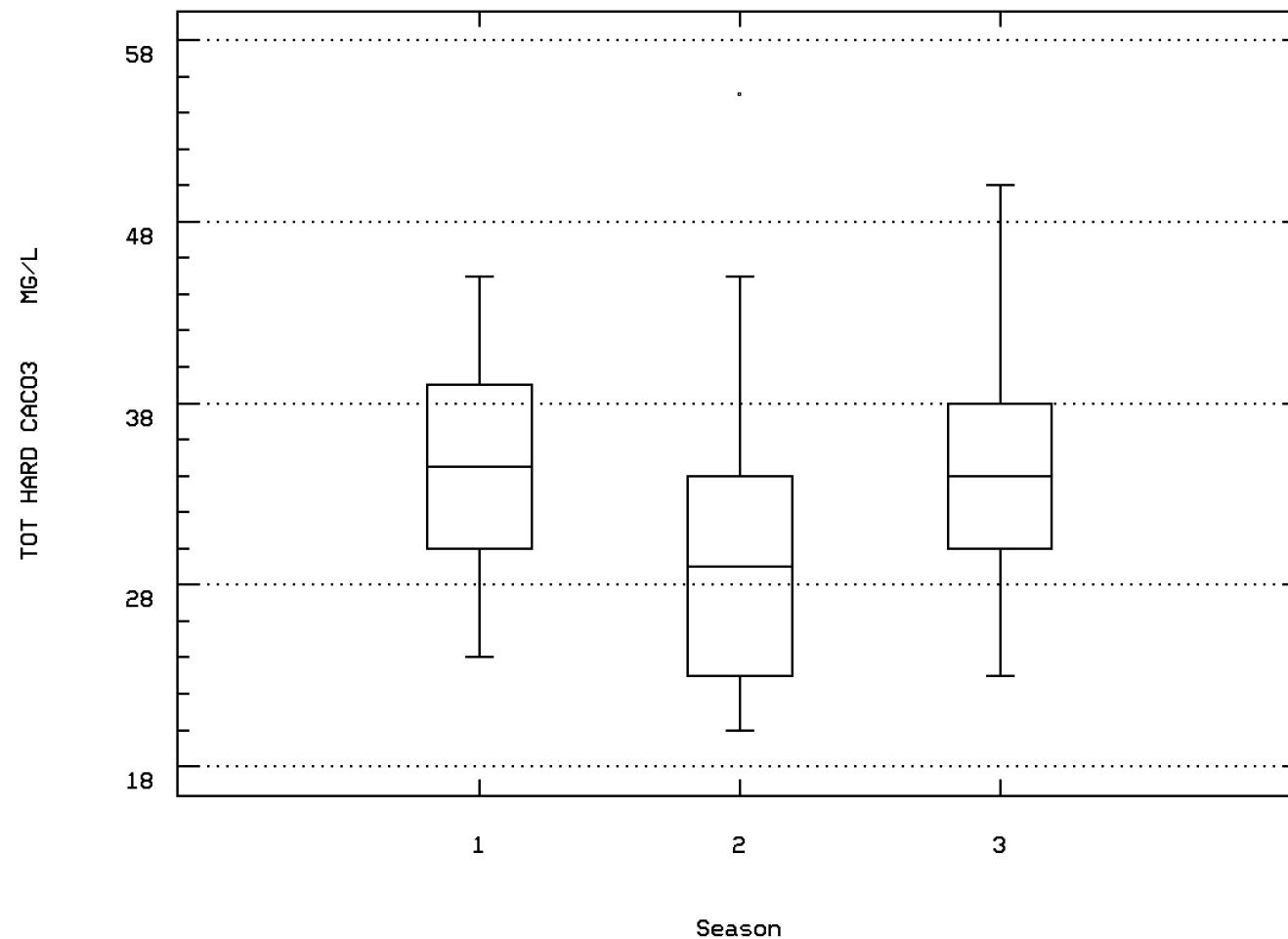
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 00900

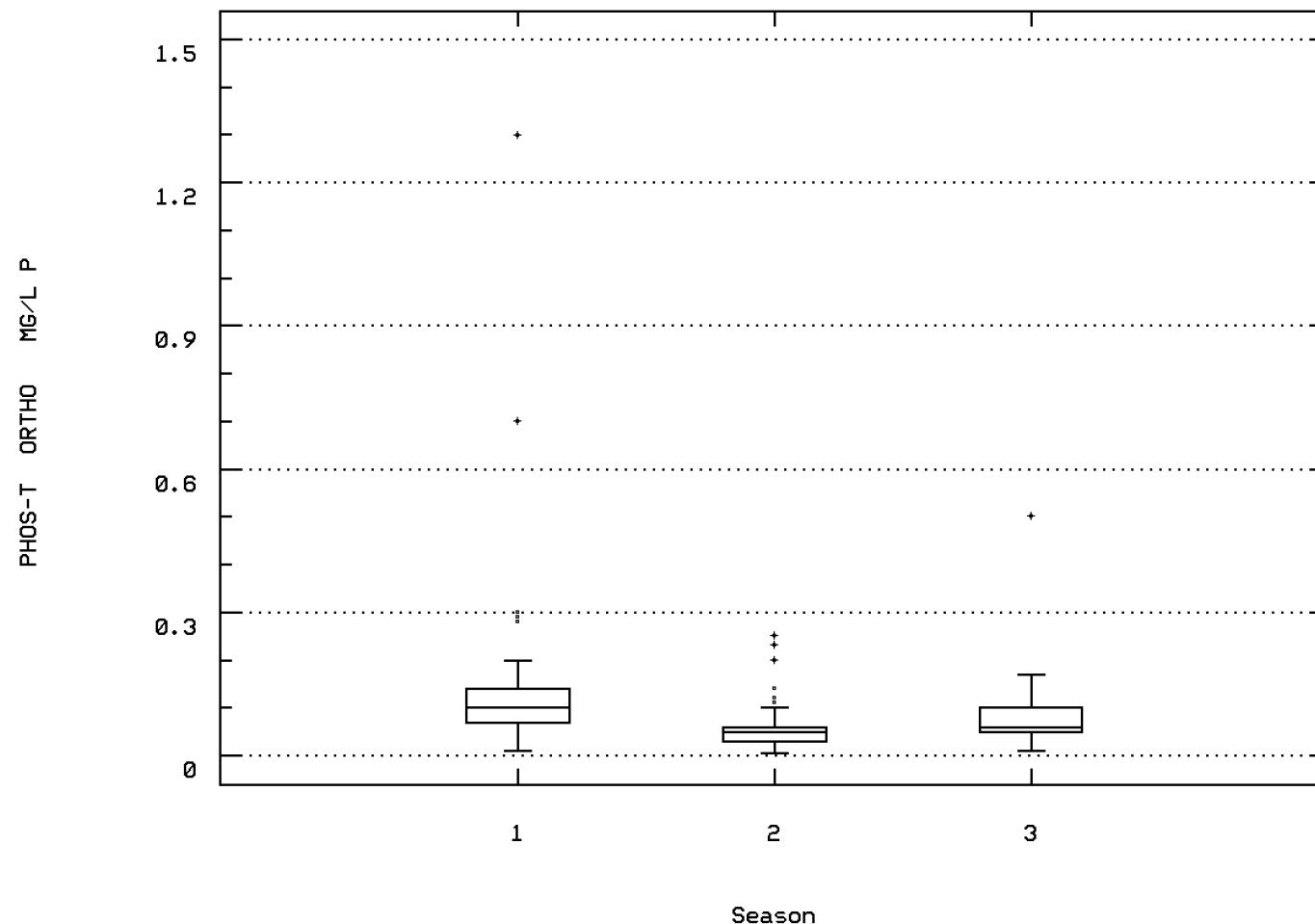
HARDNESS, TOTAL (MG/L AS CACO<sub>3</sub>)



RT. 156 BRIDGE

Station: RICH0130 Parameter Code: 70507

PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L)



RT. 156 BRIDGE

## Station Inventory for Station: RICH0131

NPS Station ID: RICH0131

LAT/LON: 37.551948/ -77.271392

Location: CHICKAHOMINY RIVER AT RT 156 NR SEVEN PINES, VA

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Depth of Water: 0

Major Basin:

Minor Basin:

RF1 Index: 02080206

RF1 Mile Point: 0.000

RF3 Index: 02080206161400.00

RF3 Mile Point: 0.00

Description:

Agency: 112WRD

FIPS State/County: 51087 VIRGINIA/HENRICO

STORET Station ID(s): 02042440

Within Park Boundary: No

Date Created: 12/22/84

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.30

Distance from RF3: 0.02

On/Off RF1:

On/Off RF3:

## Parameter Inventory for Station: RICH0131

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/04/91	33	19.	18.606	29.2	6.7	31.571	5.619	10.94	14.7	22.8	25.12
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/04/91	32	21.25	21.15	31.5	6.5	45.711	6.761	12.45	14.975	27.075	30.72
00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/04/91	32	760.	758.531	767.	745.	35.483	5.957	750.3	754.25	763.5	766.7
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/84-09/04/91	31	116.	245.	1373.	6.	137388.2	370.659	10.4	22.	230.	992.8
00065	STAGE, STREAM (FEET)	06/11/91-06/11/91	1	16.82	16.82	16.82	16.82	0.	0.	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/04/91	29	65.	68.69	130.	13.	883.865	29.73	27.	52.5	85.	120.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/04/91	33	112.	112.545	188.	48.	1092.443	33.052	65.2	87.5	134.5	160.4
00300	OXYGEN, DISSOLVED MG/L	04/08/87-09/04/91	31	6.8	6.716	11.3	3.3	4.763	2.182	3.64	5.2	8.6	10.16
00400	PH (STANDARD UNITS)	04/08/87-09/04/91	32	6.6	6.689	7.8	5.5	0.267	0.517	6.106	6.4	6.958	7.51
00400	CONVERTED PH (STANDARD UNITS)	04/08/87-09/04/91	32	6.6	6.406	7.8	5.5	0.35	0.592	6.106	6.4	6.958	7.51
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/04/91	32	0.251	0.393	3.162	0.016	0.352	0.593	0.033	0.112	0.398	0.784
00403	PH, LAB, STANDARD UNITS SU	04/08/87-10/31/89	7	7.1	6.957	7.3	6.2	0.133	0.364	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/08/87-10/31/89	7	7.1	6.783	7.3	6.2	0.168	0.41	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-10/31/89	7	0.079	0.165	0.631	0.05	0.043	0.208	**	**	**	**
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	06/11/91-06/11/91	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00453	BICARBONATE,WATER,DISS,INCR TIT, FIELD, AS HCO3,MG/L	06/11/91-06/11/91	1	33.	33.	33.	33.	0.	0.	**	**	**	**
00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC,MG/L	10/31/89-09/04/91	18 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/11/84-09/12/89	7	0.04	0.043	0.13	0.01	0.002	0.042	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/31/89-09/04/91	23	0.047	0.064	0.308	0.009	0.003	0.059	0.027	0.033	0.082	0.106
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/11/84-09/04/91	30	0.65	0.693	1.5	0.3	0.065	0.255	0.41	0.5	0.825	1.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/31/89-09/04/91	23	0.08	0.351	5.3	0.02	1.173	1.083	0.024	0.06	0.21	0.356
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/11/84-09/12/89	7	0.03	0.054	0.1	0.005	0.002	0.044	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/11/84-09/04/91	30	0.079	0.088	0.194	0.034	0.002	0.04	0.037	0.063	0.097	0.168
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	6	0.026	0.028	0.05	0.01	0.	0.015	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/11/84-09/12/89	7	0.017	0.021	0.033	0.006	0.	0.011	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/11/84-09/04/91	30	9.75	9.783	14.	5.1	4.905	2.215	6.67	8.175	11.25	12.9
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	10/31/89-03/31/91	15 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	6	7.65	8.6	15.	6.1	10.46	3.234	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	6	2.1	2.167	2.8	1.7	0.151	0.388	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	6	13.5	13.833	17.	11.	5.367	2.317	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	6	2.2	1.967	3.	0.8	0.779	0.882	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/04/91	29	13.	14.345	32.	7.	25.52	5.052	9.	12.	15.5	20.
00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/04/91	29	8.	12.759	57.	2.	134.69	11.606	3.	6.	21.	27.
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-02/05/91	7	0.1	0.107	0.2	0.05	0.002	0.045	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SiO2)	04/08/87-09/12/89	6	6.55	7.183	15.	1.1	30.854	5.555	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/04/91	27 ##	0.5	1.722	28.	0.5	27.641	5.257	0.5	0.5	1.	1.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	2 #	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/04/91	28 ##	0.5	1.464	8.	0.5	3.276	1.81	0.5	0.5	2.	3.3

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0131

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/04/91	29	2.	1.948	6.	0.5	2.845	1.687	0.5	0.5	2.	5.
01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-10/31/89	5	1.	2.	4.	1.	2.	1.414	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	2 ##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/04/91	27	3.	4.056	18.	0.5	10.276	3.206	2.	2.	4.	7.
01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/04/91	29	1900.	1993.448	4100.	910.	464887.685	681.827	1200.	1550.	2300.	3000.
01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/04/91	29	600.	730.69	1600.	150.	134528.079	366.781	280.	455.	960.	1300.
01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/04/91	26	2.5	2.962	10.	0.5	3.438	1.854	1.	2.	3.25	5.
01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/04/91	29	290.	399.655	2800.	60.	307003.448	554.079	70.	95.	450.	680.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-04/02/91	15	80.	267.	2800.	40.	492945.857	702.101	40.	50.	120.	1234.
01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/04/91	28	3.5	4.946	20.	0.5	17.599	4.195	1.	2.	7.	10.2
01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	2	184.	184.	340.	28.	48672.	220.617	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/04/91	27	20.	36.667	140.	5.	1578.846	39.735	5.	10.	40.	112.
01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-10/31/89	5 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	10/31/89-01/25/90	2	2.05	2.05	3.3	0.8	3.125	1.768	**	**	**	**
32213	PHEOPHYTIN-A,FLUORIMETRIC METHOD (UG/L)	10/31/89-01/25/90	2	2.75	2.75	3.5	2.	1.125	1.061	**	**	**	**
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	10/31/89-09/04/91	23 ##	0.5	1.478	5.	0.5	2.125	1.458	0.5	0.5	2.	4.6
39086	ALKALINITY, WATER,DISS,INCR TIT,FIELD,AS CACO <sub>3</sub> ,MG/L	06/11/91-06/11/91	1	27.	27.	27.	27.	0.	0.	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	4	82.	80.	89.	67.	110.	10.488	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/31/89-09/04/91	23	0.056	0.055	0.088	0.001	0.	0.02	0.022	0.049	0.068	0.081
71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/04/91	27 ##	0.05	0.054	0.1	0.05	0.	0.013	0.05	0.05	0.05	0.06
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-08/02/91	24	14.	19.792	91.	3.	390.694	19.766	6.	9.	20.	54.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0131

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	31	4	0.13	12	3	0.25	3	0	0.00	16	1	0.06		
00400	PH	Fresh Chronic	9.	32	0	0.00	13	0	0.00	3	0	0.00	16	0	0.00		
00403	PH, LAB	Other-Lo Lim.	6.5	32	13	0.41	13	5	0.38	3	1	0.33	16	7	0.44		
		Fresh Chronic	9.	7	0	0.00	3	0	0.00	1	0	0.00	3	0	0.00		
		Other-Lo Lim.	6.5	7	1	0.14	3	1	0.33	1	0	0.00	3	0	0.00		
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	23	0	0.00	9	0	0.00	3	0	0.00	11	0	0.00		
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	7	0	0.00	4	0	0.00				3	0	0.00		
00720	CYANIDE, TOTAL	Fresh Acute	0.022	15	0	0.00	6	0	0.00	2	0	0.00	7	0	0.00		
		Drinking Water	0.2	15	0	0.00	6	0	0.00	2	0	0.00	7	0	0.00		
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	29	0	0.00	12	0	0.00	3	0	0.00	14	0	0.00		
		Drinking Water	250.	29	0	0.00	12	0	0.00	3	0	0.00	14	0	0.00		
00945	SULFATE, TOTAL (AS SO <sub>4</sub> )	Drinking Water	250.	29	0	0.00	12	0	0.00	3	0	0.00	14	0	0.00		
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	7	0	0.00	3	0	0.00	1	0	0.00	3	0	0.00		
01002	ARSENIC, TOTAL	Fresh Acute	360.	27	0	0.00	11	0	0.00	3	0	0.00	13	0	0.00		
		Drinking Water	50.	27	0	0.00	11	0	0.00	3	0	0.00	13	0	0.00		
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	2	0	0.00	1	0	0.00				1	0	0.00		
		Drinking Water	5.	2	0	0.00	1	0	0.00				1	0	0.00		
01027	CADMIUM, TOTAL	Fresh Acute	3.9	28	2	0.07	11	1	0.09	3	0	0.00	14	1	0.07		
		Drinking Water	5.	28	2	0.07	11	1	0.09	3	0	0.00	14	1	0.07		
01034	CHROMIUM, TOTAL	Drinking Water	100.	29	0	0.00	11	0	0.00	3	0	0.00	15	0	0.00		
01040	COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00				1	0	0.00		
		Drinking Water	1300.	2	0	0.00	1	0	0.00				1	0	0.00		
01042	COPPER, TOTAL	Fresh Acute	18.	27	1	0.04	11	0	0.00	3	0	0.00	13	1	0.08		
		Drinking Water	1300.	27	0	0.00	11	0	0.00	3	0	0.00	13	0	0.00		
01049	LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00				1	0	0.00		
		Drinking Water	15.	2	0	0.00	1	0	0.00				1	0	0.00		
01051	LEAD, TOTAL	Fresh Acute	82.	26	0	0.00	10	0	0.00	3	0	0.00	13	0	0.00		
		Drinking Water	15.	26	0	0.00	10	0	0.00	3	0	0.00	13	0	0.00		
01067	NICKEL, TOTAL	Fresh Acute	1400.	28	0	0.00	10	0	0.00	3	0	0.00	15	0	0.00		
		Drinking Water	100.	28	0	0.00	10	0	0.00	3	0	0.00	15	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0131

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01090	ZINC, DISSOLVED	Fresh Acute	120.	2	1	0.50	1	1	1.00				1	0	0.00			
		Drinking Water	5000.	2	0	0.00	1	0	0.00				1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	27	2	0.07	11	2	0.18	3	0	0.00	13	0	0.00			
		Drinking Water	5000.	27	0	0.00	11	0	0.00	3	0	0.00	13	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	5	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00			
		Drinking Water	50.	5	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	2.	2	0	0.00	1	0	0.00				1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	27	0	0.00	11	0	0.00	3	0	0.00	13	0	0.00			
		Drinking Water	2.	27	0	0.00	11	0	0.00	3	0	0.00	13	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0131

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/04/91	14	22.6	23.014	29.2	16.5	10.167	3.189	18.4	21.25	24.55	28.65
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/04/91	13	27.	25.946	31.5	20.5	13.369	3.656	20.9	22.5	28.75	31.26
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/84-09/04/91	14	29.	62.714	230.	6.	4936.22	70.258	8.	12.75	134.25	187.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/04/91	14	119.5	128.	188.	100.	698.308	26.426	101.	109.75	148.25	176.5
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/11/84-09/04/91	13	0.7	0.762	1.5	0.3	0.098	0.312	0.38	0.55	0.95	1.34
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/11/84-09/04/91	13	0.083	0.1	0.19	0.063	0.002	0.041	0.063	0.074	0.121	0.183
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/11/84-09/04/91	13	8.5	9.315	14.	6.6	4.253	2.062	6.92	7.9	10.5	13.2

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0131

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/04/91	3	9.7	10.633	15.5	6.7	20.013	4.474	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/04/91	3	13.5	14.067	16.7	12.	5.763	2.401	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/84-09/04/91	3	64.	72.333	95.	58.	394.333	19.858	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/04/91	3	126.	131.	162.	105.	831.	28.827	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/11/84-09/04/91	3	0.4	0.4	0.5	0.3	0.01	0.1	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/11/84-09/04/91	3	0.037	0.037	0.04	0.034	0.	0.003	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/11/84-09/04/91	3	6.4	6.7	8.6	5.1	3.13	1.769	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0131

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/11/84-09/04/91	16	15.95	16.244	25.2	10.9	19.068	4.367	10.97	12.275	18.75	23.38
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/11/84-09/04/91	16	18.2	18.581	31.	6.5	45.996	6.782	8.95	14.05	21.75	30.51
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/11/84-09/04/91	14	210.5	464.286	1373.	7.	217603.451	466.48	52.5	148.25	984.	1291.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/11/84-09/04/91	16	87.5	95.563	145.	48.	1015.863	31.873	52.9	71.25	123.25	144.3
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/11/84-09/04/91	14	0.7	0.693	1.	0.5	0.028	0.169	0.5	0.5	0.825	0.95
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/11/84-09/04/91	14	0.082	0.088	0.194	0.034	0.001	0.037	0.047	0.066	0.097	0.156
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/11/84-09/04/91	14	11.	10.879	14.	7.3	2.83	1.682	8.45	9.775	12.	13.5

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0132

NPS Station ID: RICH0132

Location: CHICKAHOMINY RIV AT RT 615 NR HIGHLAND SPGS, VA

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Depth of Water: 0

Major Basin:

Minor Basin:

RF1 Index: 02080206

RF3 Index: 02080206003304.88

Description:

RF1 Mile Point: 0.000

RF3 Mile Point: 5.89

LAT/LON: 37.576671/ -77.334171

Agency: 112WRD

FIPS State/County: 51085 VIRGINIA/HANOVER

STORET Station ID(s): 02042435

Within Park Boundary: No

Date Created: 01/09/88

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.00

On/Off RF1:

On/Off RF3:

## Parameter Inventory for Station: RICH0132

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-04/07/90	13	20.5	18.731	25.5	10.	30.859	5.555	10.8	13.	24.25	25.3
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-04/07/90	11	21.5	20.409	26.5	11.	34.041	5.834	11.3	13.	25.5	26.3
00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-04/07/90	8	755.	756.125	767.	746.	54.411	7.376	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-09/12/89	11	34.	62.364	190.	5.	4176.855	64.629	5.	7.	124.	181.6
00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	6	60.	74.667	110.	52.	757.867	27.529	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-04/07/90	13	135.	139.846	200.	87.	1071.974	32.741	90.2	119.	158.5	196.
03000	OXYGEN, DISSOLVED MG/L	04/08/87-04/07/90	7	5.8	6.171	9.3	3.9	4.409	2.1	**	**	**	**
04040	PH (STANDARD UNITS)	04/08/87-04/07/90	8	6.665	6.641	7.1	6.	0.158	0.398	**	**	**	**
04040	CONVERTED PH (STANDARD UNITS)	04/08/87-04/07/90	8	6.634	6.481	7.1	6.	0.188	0.433	**	**	**	**
04040	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-04/07/90	8	0.232	0.33	1.	0.079	0.098	0.313	**	**	**	**
04043	PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	6	7.2	7.15	7.7	6.5	0.171	0.414	**	**	**	**
04043	CONVERTED PH, LAB, STANDARD UNITS	04/08/87-09/12/89	6	7.2	6.98	7.7	6.5	0.206	0.453	**	**	**	**
04043	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/12/89	6	0.063	0.105	0.316	0.02	0.012	0.11	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	04/08/87-09/12/89	6	0.025	0.027	0.06	0.01	0.	0.019	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/08/87-09/12/89	5	0.6	0.72	1.3	0.5	0.107	0.327	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. I DET. (MG/L AS N)	04/08/87-09/12/89	6	0.045	0.055	0.1	0.01	0.001	0.037	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/08/87-09/12/89	6	0.067	0.069	0.082	0.053	0.	0.011	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	6	0.027	0.033	0.069	0.01	0.	0.02	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/08/87-09/12/89	6	0.017	0.021	0.042	0.006	0.	0.013	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/08/87-09/12/89	5	9.5	9.08	11.	6.7	2.787	1.669	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	6	8.5	8.383	10.	7.1	1.23	1.109	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	6	2.1	2.167	2.6	1.9	0.063	0.25	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	6	13.	13.833	17.	11.	6.567	2.563	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	6	2.35	2.05	3.2	0.8	1.039	1.019	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	6	15.	16.833	24.	13.	20.967	4.579	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	6	21.5	20.167	37.	4.	134.167	11.583	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	6	0.1	0.117	0.2	0.1	0.002	0.041	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	04/08/87-09/12/89	6	6.65	6.95	13.	1.5	23.579	4.856	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	4	1.	0.875	1.	0.5	0.063	0.25	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	2 ##	1.25	1.25	2.	0.5	1.125	1.061	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-04/07/90	6 ##	0.75	2.083	9.	0.5	11.542	3.397	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-04/07/90	6 ##	0.75	0.917	2.	0.5	0.342	0.585	**	**	**	**
01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	4	1.	1.125	2.	0.5	0.396	0.629	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	2 ##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	4	3.	3.25	4.	3.	0.25	0.5	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	6	1950.	1933.333	2400.	1300.	190666.667	436.654	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	6	670.	723.333	1500.	120.	268026.667	517.713	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0132

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	4 ##	2.5	2.375	2.5	2.	0.063	0.25	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	6	365.	503.333	1200.	100.	183146.667	427.956	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-04/12/88	3	140.	441.333	1100.	84.	326165.333	571.109	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-04/07/90	6	3.	2.917	6.	0.5	4.042	2.01	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	2	144.5	144.5	260.	29.	26680.5	163.342	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	4	30.	85.	260.	20.	13700.	117.047	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	4	87.	88.25	98.	81.	66.917	8.18	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	4 ##	0.05	0.088	0.2	0.05	0.006	0.075	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	4	7.5	7.75	9.	7.	0.917	0.957	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0132

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a	
						Obs	Exceed	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	7	1	0.14	2	1	0.50		5	0	0.00
00400	PH	Fresh Chronic	9.	8	0	0.00	3	0	0.00		5	0	0.00
00403	PH, LAB	Other-Lo Lim.	6.5	8	4	0.50	3	2	0.67		5	2	0.40
		Fresh Chronic	9.	6	0	0.00	3	0	0.00		3	0	0.00
		Other-Lo Lim.	6.5	6	1	0.17	3	1	0.33		3	0	0.00
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	6	0	0.00	3	0	0.00		3	0	0.00
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	6	0	0.00	3	0	0.00		3	0	0.00
		Drinking Water	250.	6	0	0.00	3	0	0.00		3	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	6	0	0.00	3	0	0.00		3	0	0.00
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	6	0	0.00	3	0	0.00		3	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	4	0	0.00	2	0	0.00		2	0	0.00
		Drinking Water	50.	4	0	0.00	2	0	0.00		2	0	0.00
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	2	0	0.00	1	0	0.00		1	0	0.00
		Drinking Water	5.	2	0	0.00	1	0	0.00		1	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	6	1	0.17	2	0	0.00		4	1	0.25
		Drinking Water	5.	6	1	0.17	2	0	0.00		4	1	0.25
01034	CHROMIUM, TOTAL	Drinking Water	100.	6	0	0.00	2	0	0.00		4	0	0.00
01040	COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00		1	0	0.00
		Drinking Water	1300.	2	0	0.00	1	0	0.00		1	0	0.00
01042	COPPER, TOTAL	Fresh Acute	18.	4	0	0.00	2	0	0.00		2	0	0.00
		Drinking Water	1300.	4	0	0.00	2	0	0.00		2	0	0.00
01049	LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00		1	0	0.00
		Drinking Water	15.	2	0	0.00	1	0	0.00		1	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	4	0	0.00	2	0	0.00		2	0	0.00
		Drinking Water	15.	4	0	0.00	2	0	0.00		2	0	0.00
01067	NICKEL, TOTAL	Fresh Acute	1400.	6	0	0.00	2	0	0.00		4	0	0.00
		Drinking Water	100.	6	0	0.00	2	0	0.00		4	0	0.00
01090	ZINC, DISSOLVED	Fresh Acute	120.	2	1	0.50	1	1	1.00		1	0	0.00
		Drinking Water	5000.	2	0	0.00	1	0	0.00		1	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	4	1	0.25	2	1	0.50		2	0	0.00
		Drinking Water	5000.	4	0	0.00	2	0	0.00		2	0	0.00
01147	SELENIUM, TOTAL	Fresh Acute	20.	4	0	0.00	2	0	0.00		2	0	0.00
		Drinking Water	50.	4	0	0.00	2	0	0.00		2	0	0.00
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	1	0	0.00		1	0	0.00
		Drinking Water	2.	2	0	0.00	1	0	0.00		1	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	4	0	0.00	2	0	0.00		2	0	0.00
		Drinking Water	2.	4	0	0.00	2	0	0.00		2	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0133

NPS Station ID: RICH0133  
 Location: CHICKAHOMINY RIVER, RT. 615 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: CHICKAHOMINY RIVER SECTION: 05 TOPO MAP #: 0039 TOPO MAP NAME: SEVEN PINES, VA

LAT/LON: 37.576948/ -77.334171

Agency: 21VASWCB  
 FIPS State/County: 51085 VIRGINIA/HANOVER  
 STORET Station ID(s): 2-CHK059.27  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.29

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

### Parameter Inventory for Station: RICH0133

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/19/94-10/19/94	4	25.65	22.825	26.9	13.1	43.422	6.59	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/19/94-10/19/94	1	135.	135.	135.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-10/19/94	4	4.	4.45	6.5	3.3	1.977	1.406	**	**	**	**
00400	PH (STANDARD UNITS)	07/19/94-10/19/94	4	6.405	6.363	6.44	6.2	0.013	0.113	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/19/94-10/19/94	4	6.404	6.351	6.44	6.2	0.013	0.114	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/19/94-10/19/94	4	0.395	0.446	0.631	0.363	0.016	0.127	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0133

Parameter	Std. Type	Std. Value	Total	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs		Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	4	3	0.75	3	3	1.00	1	0	0.00					
00400	PH	Fresh Chronic	9.	4	0	0.00	3	0	0.00	1	0	0.00					
		Other-Lo Lim.	6.5	4	4	1.00	3	3	1.00	1	1	1.00					

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0134

NPS Station ID: RICH0134  
 Location: RT. 360 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206062  
 RF3 Index: 02080205075000.00  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: CHICKAHOMINY RI. SECTION: 05 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.595281/ -77.382504

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-CHK062.57 /VA2-05-X0057/VA2-4X0057  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 14.800  
 RF3 Mile Point: 0.19

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.11

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	263	16.	15.506	29.5	-3.5	63.467	7.967	5.5	8.	22.5	25.6
00070 TURBIDITY, (JACKSON CANDLE UNITS)	11/21/88-06/10/91	22	7.15	7.473	11.3	4.2	4.472	2.115	5.06	5.65	8.925	11.15
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/02/97-12/14/98	18	11.85	15.594	37.	4.9	86.666	9.309	6.88	9.475	17.475	33.94
00080 COLOR (PLATINUM-COBALT UNITS)	03/13/91-03/03/93	8	92.	95.375	156.	44.	1206.554	34.735	**	**	**	**
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	120	171.	193.25	1124.	67.	16397.651	128.053	105.3	139.25	213.	264.3
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/10/89-12/14/98	44	155.5	159.364	261.	76.	1507.539	38.827	105.5	133.75	181.75	219.5
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/14/98	35	5.2	5.717	12.6	0.4	14.717	3.836	1.	2.1	9.2	11.18
00300 OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	231	6.2	6.53	15.8	0.4	10.802	3.287	2.2	3.9	9.4	11.
00310p BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	168	2.	2.084	20.	0.5	3.97	1.993	1.	1.	2.075	3.
00340 COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	147	23.	23.939	42.	5.	50.798	7.127	16.	18.	29.	34.
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	264	6.5	6.56	8.41	1.	0.356	0.596	6.	6.38	6.8	7.
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	264	6.5	3.419	8.41	1.	10.256	3.203	6.	6.38	6.8	7.
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	264	0.316	381.091	100000.	0.00437877986.903	6154.509	0.1	0.158	0.417	1.	
00403 PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	67	6.7	6.666	7.4	5.9	0.089	0.298	6.3	6.5	6.8	7.02
00403 CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	67	6.7	6.567	7.4	5.9	0.099	0.314	6.3	6.5	6.8	7.02
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	67	0.2	0.271	1.259	0.04	0.044	0.211	0.096	0.158	0.316	0.501
00410 ALKALINITY, TOTAL (MG/L AS CaCO3)	09/20/67-12/14/98	65	23.	27.785	71.	6.	255.328	15.979	10.6	14.	40.5	50.4
00415 ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/06/70-05/06/70	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	159	114.	124.56	590.	57.	2440.172	49.398	86.	100.	140.	171.
00505p RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	160	42.	49.55	800.	7.	4017.758	63.386	23.1	33.	52.75	68.
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	156	76.	81.558	570.	11.	2413.629	49.129	40.	59.25	96.75	116.3
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	251	5.	7.327	60.	0.	63.913	7.995	2.	2.5	8.	16.
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	255	2.5	3.878	25.	0.	13.631	3.692	1.	2.	5.	8.
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	249	2.5	4.074	40.	0.	29.58	5.439	0.	1.	4.	9.
00545 RESIDUE, SETTLEABLE (ML/L)	08/18/82-08/18/82	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	249 ##	0.05	0.063	0.5	0.005	0.003	0.052	0.02	0.05	0.05	0.1
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	247 ##	0.005	0.007	0.07	0.005	0.	0.006	0.005	0.005	0.01	0.01
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	228	0.09	0.134	0.5	0.005	0.013	0.116	0.025	0.05	0.19	0.32
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	243	0.5	0.607	2.3	0.15	0.11	0.332	0.3	0.4	0.7	0.96
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	18 ##	0.025	0.106	0.37	0.025	0.015	0.124	0.025	0.025	0.21	0.334
00660 PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	4	0.305	0.325	0.44	0.25	0.008	0.089	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	143	0.1	0.101	0.6	0.03	0.006	0.077	0.05	0.05	0.1	0.2
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	114	0.05	0.086	3.	0.01	0.078	0.28	0.02	0.03	0.08	0.1

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	122	10.	10.543	21.	4.	12.63	3.554	6.49	8.	13.	16.
00900 HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	09/20/67-12/14/98	50	40.	43.84	93.	20.	264.709	16.27	23.1	30.	54.25	61.
00927 MAGNESIUM, TOTAL (MG/L AS MG)	09/02/92-03/03/93	3	2320.	2343.333	2640.	2070.	81633.333	285.715	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	53	18.	26.66	317.	7.	1754.306	41.884	12.4	16.	24.	35.2
00945 SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	11/21/88-12/14/98	51	10.	14.549	105.	2.	228.893	15.129	6.	8.	16.	23.8
00951 FLUORIDE, TOTAL (MG/L AS F)	11/21/88-03/03/93	27	0.14	0.149	0.4	0.05	0.007	0.086	0.05	0.1	0.19	0.264
00955 SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	05/10/89-12/28/92	22	10.35	9.777	15.9	4.7	11.145	3.338	5.05	6.725	11.75	14.9
01002 ARSENIC, TOTAL (UG/L AS AS)	04/28/71-06/01/93	19 ##	2.5	3.105	5.	0.5	3.738	1.933	0.5	1.	5.	5.
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/12/81-07/21/92	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	09/02/92-03/03/93	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	04/28/71-06/01/93	22 ##	5.	4.159	5.	0.005	3.341	1.828	0.5	5.	5.	5.
01028 CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
01029 CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-06/01/93	32 ##	5.	6.438	20.	0.5	12.883	3.589	5.	5.	10.	10.
01042 COPPER, TOTAL (UG/L AS CU)	03/24/70-06/01/93	31 ##	5.	7.097	30.	5.	27.957	5.287	5.	5.	5.	10.
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	05/12/81-07/21/92	1	11.3	11.3	11.3	11.3	0.	0.	**	**	**	**
01045 IRON, TOTAL (UG/L AS FE)	06/29/70-06/01/93	11	1299.	1435.636	2425.	463.	328594.655	573.232	544.2	1155.	1823.	2391.2
01051 LEAD, TOTAL (UG/L AS PB)	06/29/70-06/01/93	28 ##	5.	5.536	20.	0.5	16.721	4.089	1.	2.75	5.	10.1
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	05/12/81-07/21/92	1	156.	156.	156.	0.	0.	**	**	**	**	**
01055 MANGANESE, TOTAL (UG/L AS MN)	03/24/70-06/01/93	12	119.7	480.542	3900.	26.6	1184902.274	1088.532	29.42	65.	362.35	2894.91
01059 THALLIUM, TOTAL (UG/L AS TL)	09/02/92-03/03/93	3 ##	10.	10.	10.	0.	0.	**	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	10 ##	50.	41.	50.	5.	360.	18.974	5.	38.75	50.	50.
01067 NICKEL, TOTAL (UG/L AS NI)	06/28/82-06/01/93	10 ##	5.	5.9	14.	5.	8.1	2.846	5.	5.	5.	13.1
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	03/24/70-06/01/93	32	17.5	21.688	90.	5.	358.48	18.934	5.	10.	30.	37.
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	05/12/81-07/21/92	1	105.	105.	105.	105.	0.	0.	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	03/13/91-06/01/93	8 ##	10.	12.	26.	10.	32.	5.657	**	**	**	**
31505 COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	09/20/67-10/28/77	18	930.	8548.944	93000.	91.	486534168.291	22057.52	144.1	230.	4550.	30900.
31505 LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31505)	09/20/67-10/28/77	18	2.968	3.075	4.968	1.959	0.704	0.839	2.154	2.362	3.546	4.439
31615 GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	GEOMETRIC MEAN =			1189.83								
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/02/97-12/14/98	18	104.	548.722	3500.	9.	943627.036	971.405	9.	45.	522.5	2510.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/02/97-12/14/98	18	2.003	2.138	3.544	0.954	0.588	0.767	0.954	1.653	2.649	3.397
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			137.368								
31616 FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	211 ##	50.	192.749	5400.	50.	234316.218	484.062	50.	50.	100.	400.
31616 LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	211 ##	1.699	1.952	3.732	1.699	0.17	0.413	1.699	1.699	2.	2.602
31616 GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			89.59								
32240 TANNIN AND LIGNIN (MG/L)	12/03/91-03/03/93	5	1.2	1.06	1.4	0.6	0.098	0.313	**	**	**	**
34259 DELTA BENZENE HEXACHLORIDE TOTWUG/L	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34351 ENDOSULFAN SULFATE TOTWUG/L	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34356 ENDOSULFAN, BETA TOTWUG/L	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34361 ENDOSULFAN, ALPHA TOTWUG/L	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34366 ENDRIN ALDEHYDE TOTWUG/L	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34671 PCB - 1016 TOTWUG/L	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
38442 DICAMBA (BANVEL) WATER,DISSUG/L	03/06/85-03/06/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38451 DICHLORPROP WATER,SUSPUG/L	03/06/85-03/06/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
38745 2,4-DB WATER, TOTUG/L	03/06/85-03/06/85	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/16/79-03/06/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39062 CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39065 CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39068 CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39071 CHLORDANE-NONACHLOR,TPANS ISO,WHOLE WTR (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39300 P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39305 O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39310 P,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39315 O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39320 P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39327 ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39330 ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	5	0.	0.01	0.05	0.	0.001	0.022	**	**	**	**
39337 ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39338 BETA BENZENE HEXACHLORIDE IN WHOLE WATER SAMP	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39340 GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	03/06/85-03/06/85	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39350 CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39380 DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39390 ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-03/06/85	4	0.	0.013	0.05	0.	0.001	0.025	**	**	**	**
39400 TOXAPENE IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39410 HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39488 PCB - 1221 IN THE WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39492 PCB - 1232 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39496 PCB - 1242 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39500 PCB - 1248 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39508 PCB - 1260 PCB SERIES WHOLE WATER SAMPLE UG/L	03/06/85-03/06/85	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39516 PCBS IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	06/29/82-06/29/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-05/12/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39730 2,4-D IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39740 2,4,5-T IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39760 SILVEX IN WHOLE WATER SAMPLE (UG/L)	03/06/85-03/06/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
46570 HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	03/13/91-06/01/93	8	33.	35.25	44.	30.	32.5	5.701	**	**	**	**
50060 CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505 PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	98	0.1	0.1	0.6	0.05	0.006	0.076	0.05	0.05	0.1	0.2
70507 PHOSPHORUS,IN TOTAL,ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	130	0.055	0.065	0.2	0.005	0.001	0.033	0.03	0.04	0.09	0.1
71900 MERCURY, TOTAL (UG/L AS HG)	09/21/70-06/01/93	29 ##	0.25	0.204	0.25	0.025	0.004	0.06	0.15	0.15	0.25	0.25
71921 MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/12/81-07/21/92	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77825 ALACHLOR WHOLE WATER,UG/L	03/06/85-03/06/85	1##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
82032 CALCIUM - TOTAL UG/L (AS CA)	09/02/92-03/03/93	3	9510.	10340.	13080.	8430.	5922300.	2433.578	**	**	**	**
82078 TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/04/91-06/08/94	12	7.05	16.742	120.	3.	1066.632	32.659	3.42	6.025	11.125	88.2

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0134

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	22	0	0.00	5	0	0.00	10	0	0.00	7	0	0.00			
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	18	0	0.00	7	0	0.00	8	0	0.00	3	0	0.00			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	35	16	0.46	11	10	0.91	18	2	0.11	6	4	0.67			
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	231	65	0.28	69	42	0.61	93	4	0.04	69	19	0.28			
00400 PH	Fresh Chronic	9.	264	0	0.00	81	0	0.00	109	0	0.00	74	0	0.00			
	Other-Lo Lim.	6.5	263 &	140	0.53	80	42	0.53	109	64	0.59	74	34	0.46			
00403 PH, LAB	Fresh Chronic	9.	67	0	0.00	20	0	0.00	27	0	0.00	20	0	0.00			
	Other-Lo Lim.	6.5	67	22	0.33	20	1	0.05	27	17	0.63	20	4	0.20			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	247	0	0.00	73	0	0.00	103	0	0.00	71	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	228	0	0.00	68	0	0.00	95	0	0.00	65	0	0.00			
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	18	0	0.00	4	0	0.00	8	0	0.00	6	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	53	0	0.00	16	0	0.00	24	0	0.00	13	0	0.00			
	Drinking Water	250.	53	1	0.02	16	0	0.00	24	1	0.04	13	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	51	0	0.00	15	0	0.00	23	0	0.00	13	0	0.00			
00951 FLUORIDE, TOTAL AS F	Drinking Water	4.	27	0	0.00	7	0	0.00	11	0	0.00	9	0	0.00			
01002 ARSENIC, TOTAL	Fresh Acute	360.	19	0	0.00	4	0	0.00	9	0	0.00	6	0	0.00			
	Drinking Water	50.	19	0	0.00	4	0	0.00	9	0	0.00	6	0	0.00			
01012 BERYLLIUM, TOTAL	Fresh Acute	130.	3	0	0.00	1	0	0.00	2	0	0.00						
	Drinking Water	4.	0 &	0	0.00												
01027 CADMIUM, TOTAL	Fresh Acute	3.9	4 &	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00			
	Drinking Water	5.	4 &	0	0.00	1	0	0.00	1	0	0.00	2	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	32	0	0.00	5	0	0.00	13	0	0.00	14	0	0.00			
01042 COPPER, TOTAL	Fresh Acute	18.	31	2	0.06	5	1	0.20	13	0	0.00	13	1	0.08			
	Drinking Water	1300.	31	0	0.00	5	0	0.00	13	0	0.00	13	0	0.00			
01051 LEAD, TOTAL	Fresh Acute	82.	28	0	0.00	5	0	0.00	13	0	0.00	10	0	0.00			
	Drinking Water	15.	28	1	0.04	5	0	0.00	13	1	0.08	10	0	0.00			
01059 THALLIUM, TOTAL	Fresh Acute	1400.	3	0	0.00	1	0	0.00	2	0	0.00						
	Drinking Water	2.	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

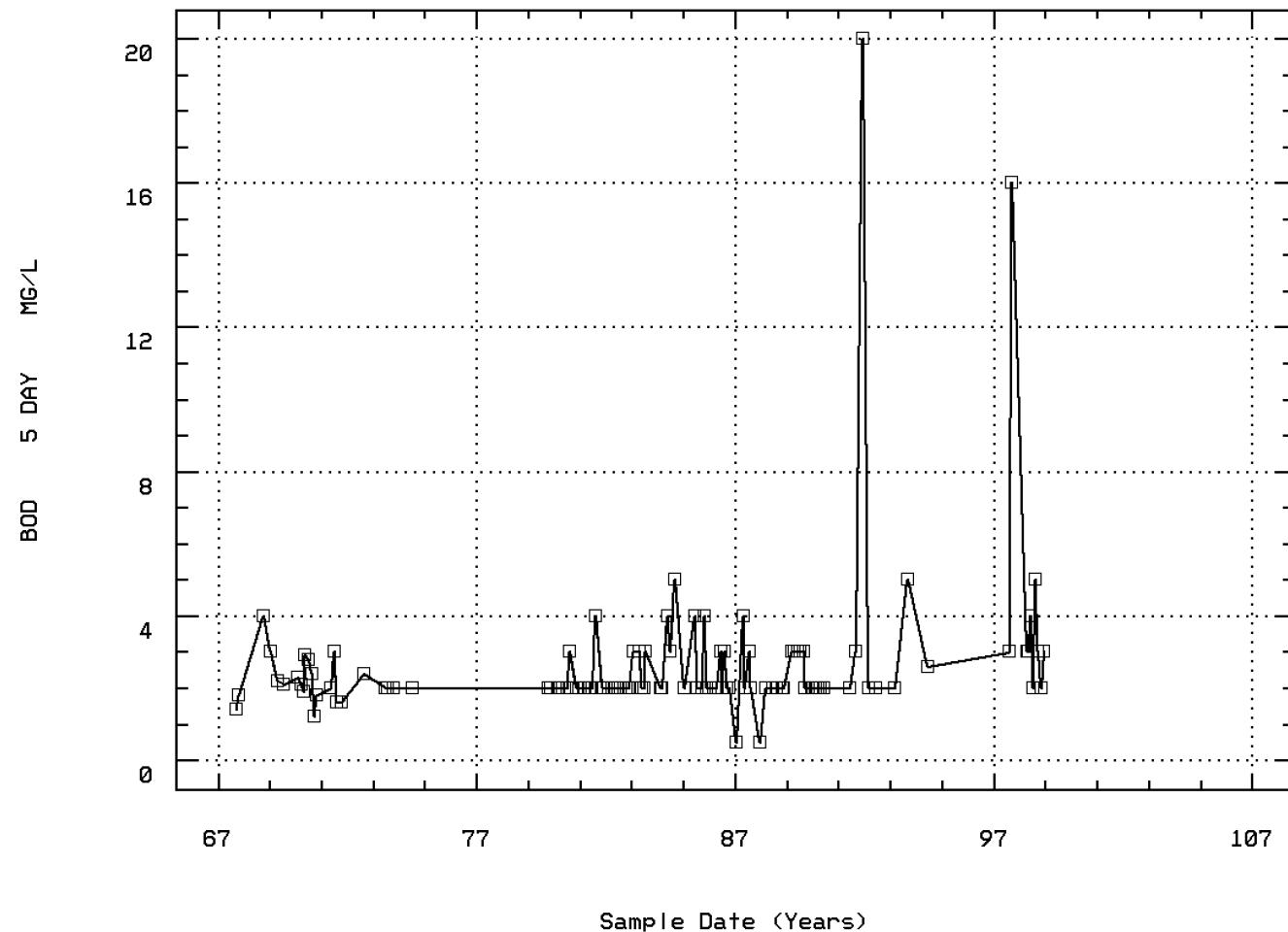
### EPA Water Quality Criteria Analysis for Station: RICH0134

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	10	0	0.00	1	0	0.00	3	0	0.00	6	0	0.00
	Drinking Water	100.	10	0	0.00	1	0	0.00	3	0	0.00	6	0	0.00
01067 NICKEL, TOTAL	Fresh Acute	1400.	10	0	0.00	2	0	0.00	6	0	0.00	2	0	0.00
	Drinking Water	100.	10	0	0.00	2	0	0.00	6	0	0.00	2	0	0.00
01092 ZINC, TOTAL	Fresh Acute	120.	32	0	0.00	5	0	0.00	13	0	0.00	14	0	0.00
	Drinking Water	5000.	32	0	0.00	5	0	0.00	13	0	0.00	14	0	0.00
01147 SELENIUM, TOTAL	Fresh Acute	20.	8	1	0.13	2	1	0.50	5	0	0.00	1	0	0.00
	Drinking Water	50.	8	0	0.00	2	0	0.00	5	0	0.00	1	0	0.00
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	18	6	0.33	9	2	0.22	4	2	0.50	5	2	0.40
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	18	6	0.33	7	3	0.43	8	3	0.38	3	0	0.00
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	211	43	0.20	63	19	0.30	87	12	0.14	61	12	0.20
34356 ENDOSULFAN, BETA, TOTAL	Fresh Acute	0.22	1	0	0.00				1	0	0.00			
	Drinking Water	0.22	1	0	0.00				1	0	0.00			
34361 ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	1	0	0.00				1	0	0.00			
	Drinking Water	0.22	1	0	0.00				1	0	0.00			
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
	Drinking Water	1.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39300 P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
	Drinking Water	0.6	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39310 P,P' DDD IN WHOLE WATER SAMPLE	Fresh Acute	1050.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
	Drinking Water	3.	5	0	0.00	1	0	0.00	2	0	0.00	2	0	0.00
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	2.	1	0	0.00				1	0	0.00			
	Drinking Water	0.2	1	0	0.00				1	0	0.00			
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.4	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
	Drinking Water	2.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39340 GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	0.18	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
	Drinking Water	0.18	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
	Drinking Water	2.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
	Drinking Water	0.18	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
39390 ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.	4	0	0.00	1	0	0.00	2	0	0.00	1	0	0.00
	Drinking Water	0.73	1	0	0.00				1	0	0.00			
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	3.	1	0	0.00				1	0	0.00			
	Drinking Water	0.4	1	0	0.00				1	0	0.00			
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00				1	0	0.00			
	Drinking Water	0.4	1	0	0.00				1	0	0.00			
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00				1	0	0.00			
	Drinking Water	0.2	1	0	0.00				1	0	0.00			
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
	Drinking Water	3.	1	0	0.00				1	0	0.00			
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Fresh Acute	6.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
	Drinking Water	1.	3	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	70.	1	0	0.00				1	0	0.00			
	Drinking Water	50.	1	0	0.00				1	0	0.00			
39730 2,4-D IN WHOLE WATER SAMPLE	Fresh Acute	0.019	1	0	0.00	1	0	0.00						
	Drinking Water	2.4	29	0	0.00	6	0	0.00	13	0	0.00	10	0	0.00
39760 SILVEX IN WHOLE WATER SAMPLE	Fresh Acute	50.	12	1	0.08	3	1	0.33	6	0	0.00	3	0	0.00
	Drinking Water	50.	12	1	0.08	3	1	0.33	6	0	0.00	3	0	0.00
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00									
	Drinking Water	2.4	29	0	0.00	6	0	0.00	13	0	0.00	10	0	0.00
71900 MERCURY, TOTAL	Fresh Acute	2.4	29	0	0.00	6	0	0.00	13	0	0.00	10	0	0.00
	Drinking Water	2.	29	0	0.00	6	0	0.00	13	0	0.00	10	0	0.00
82078 TURBIDITY, FIELD	Other-Hi Lim.	50.	12	1	0.08	3	1	0.33	6	0	0.00	3	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station: RICH0134 Parameter Code: 00310

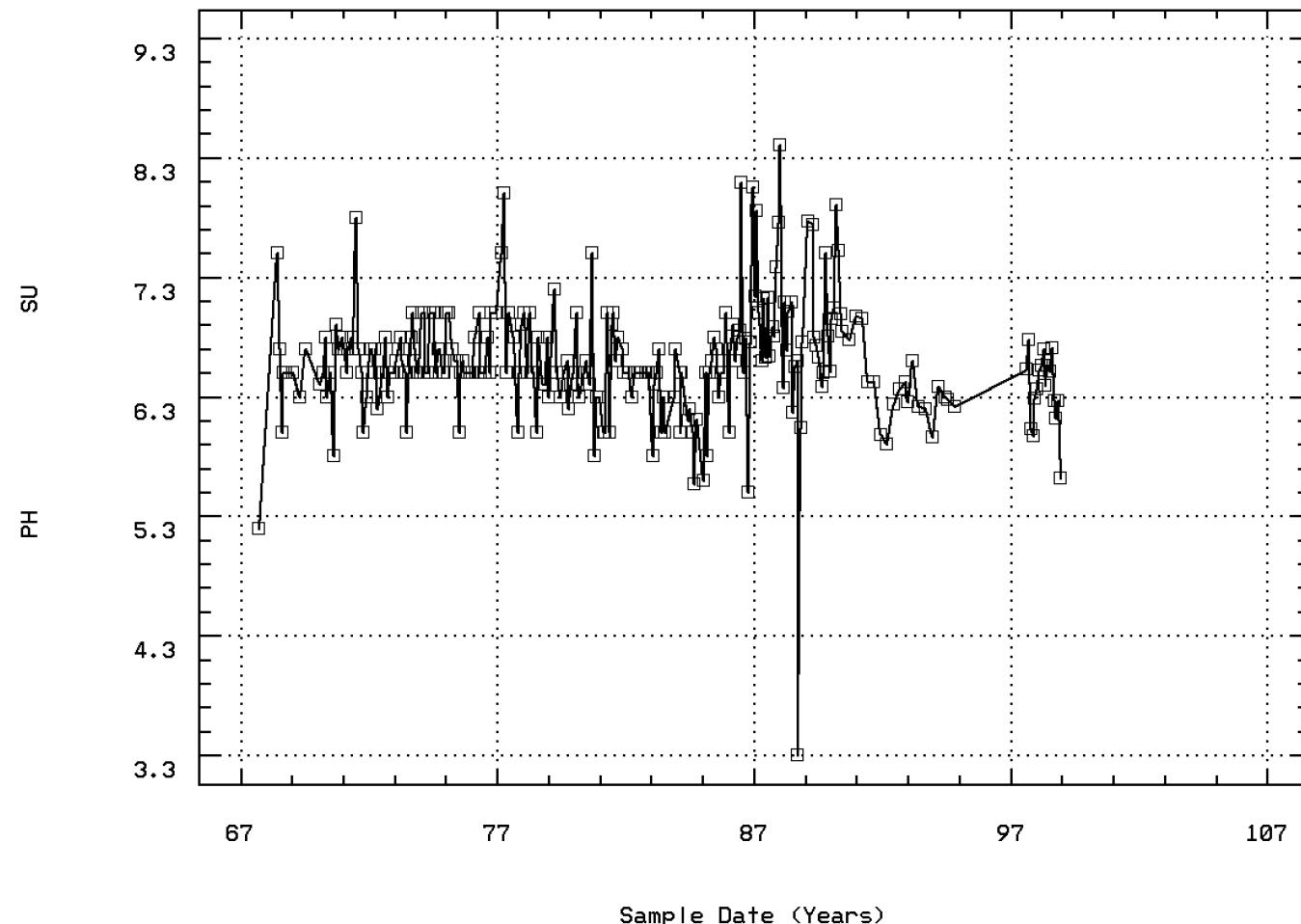
BOD, 5 DAY, 20 DEG C



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00400

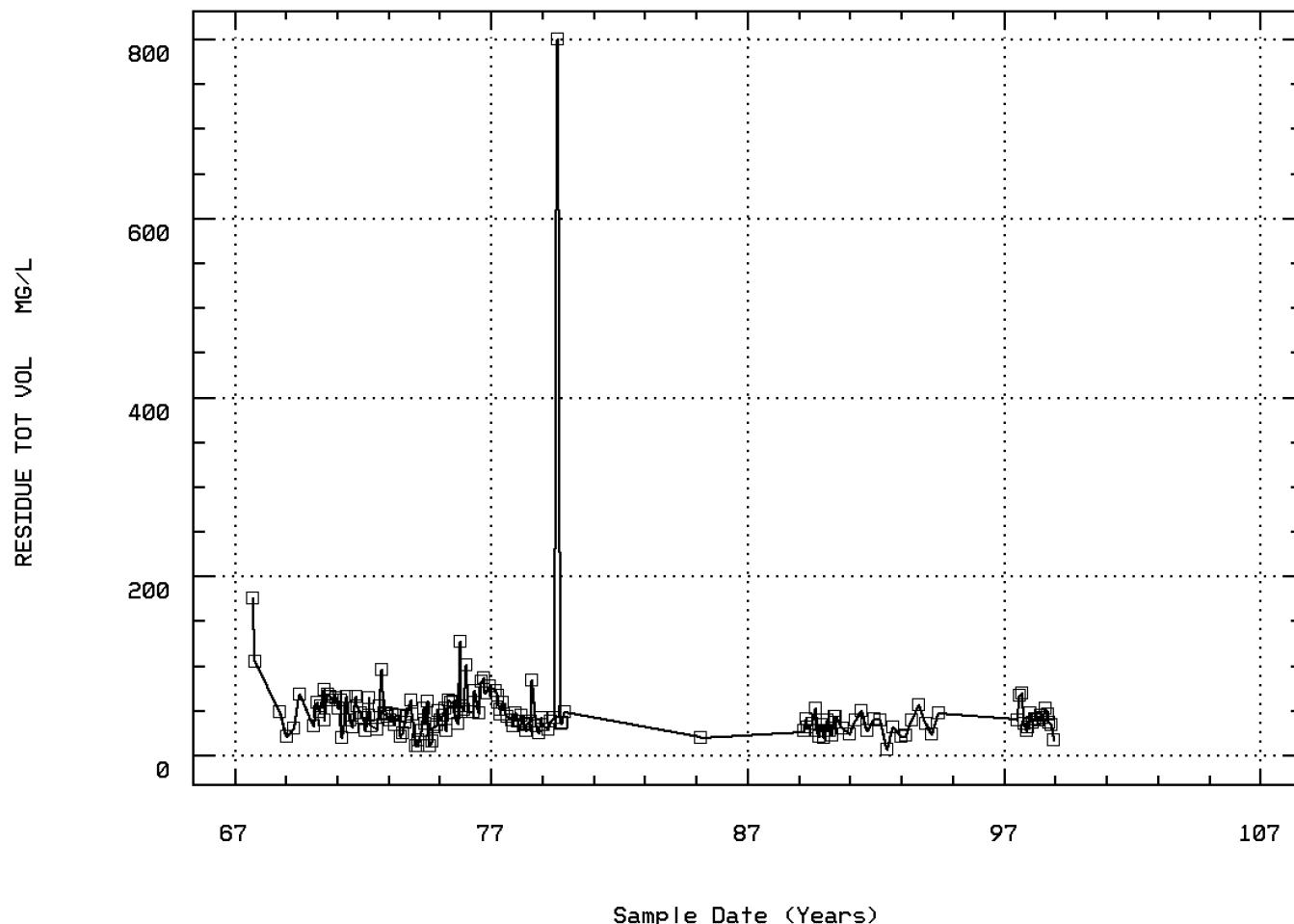
PH (STANDARD UNITS)



RT. 360 BRIDGE

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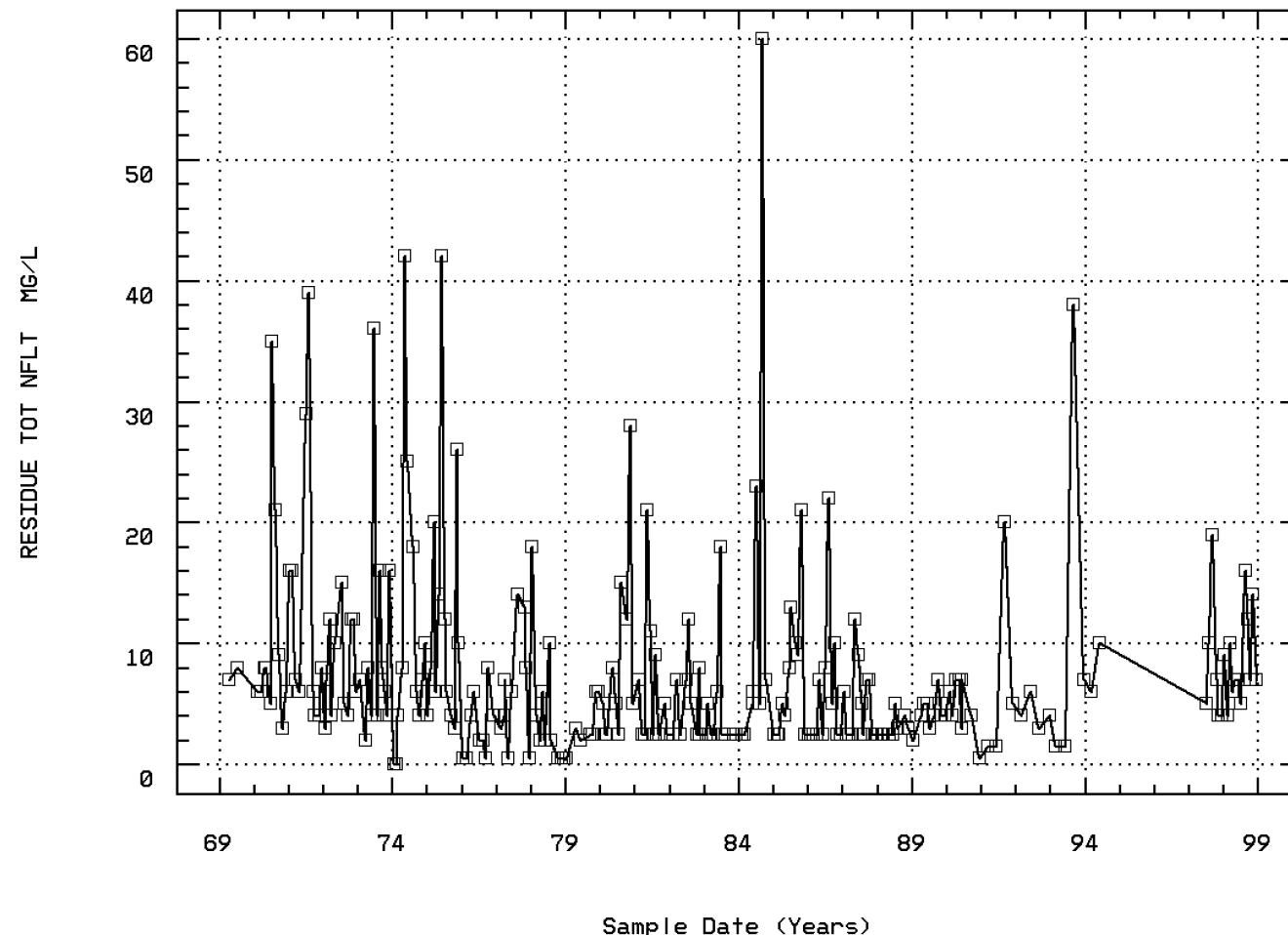
RESIDUE, TOTAL VOLATILE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00530

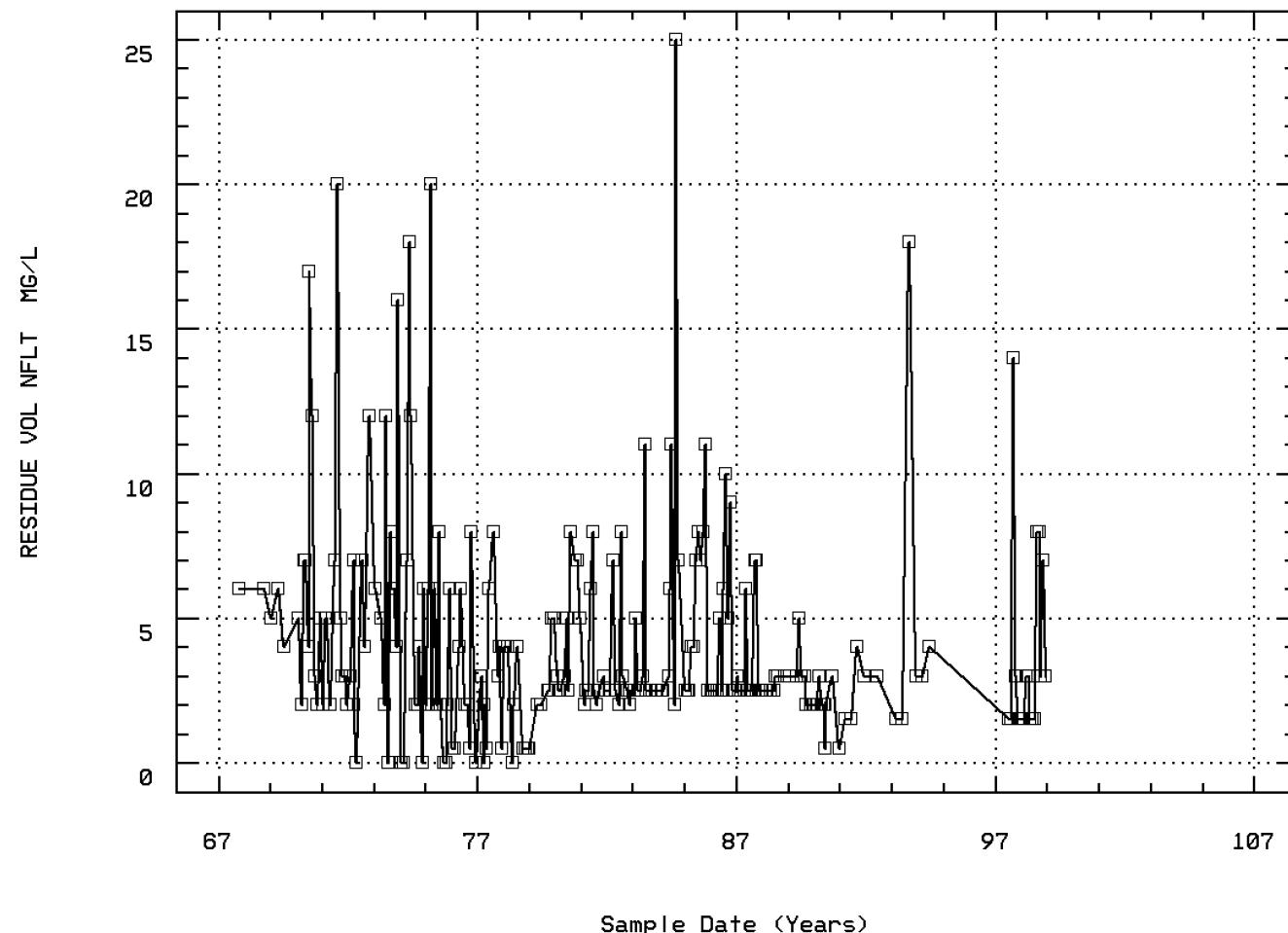
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00535

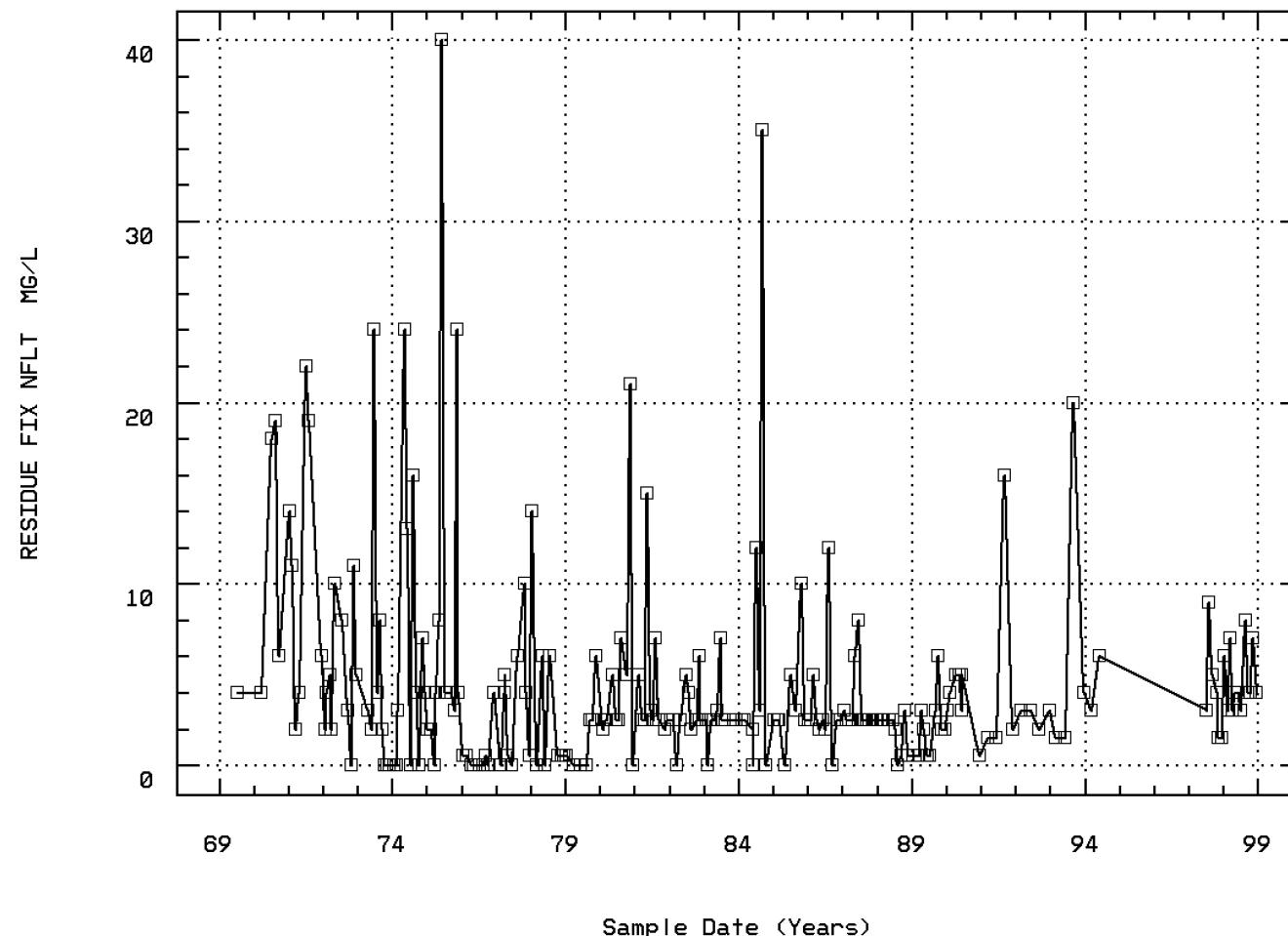
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00540

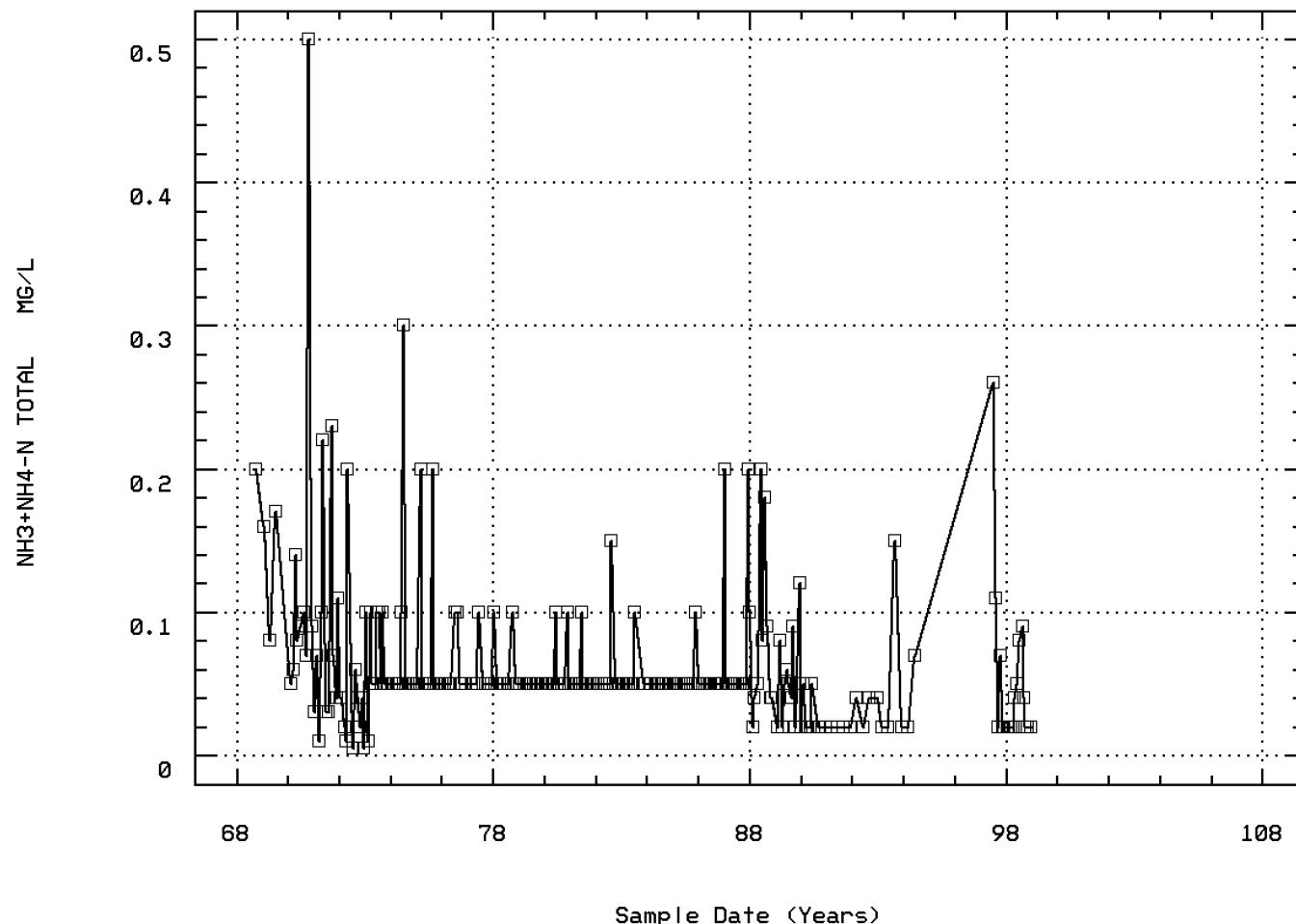
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00610

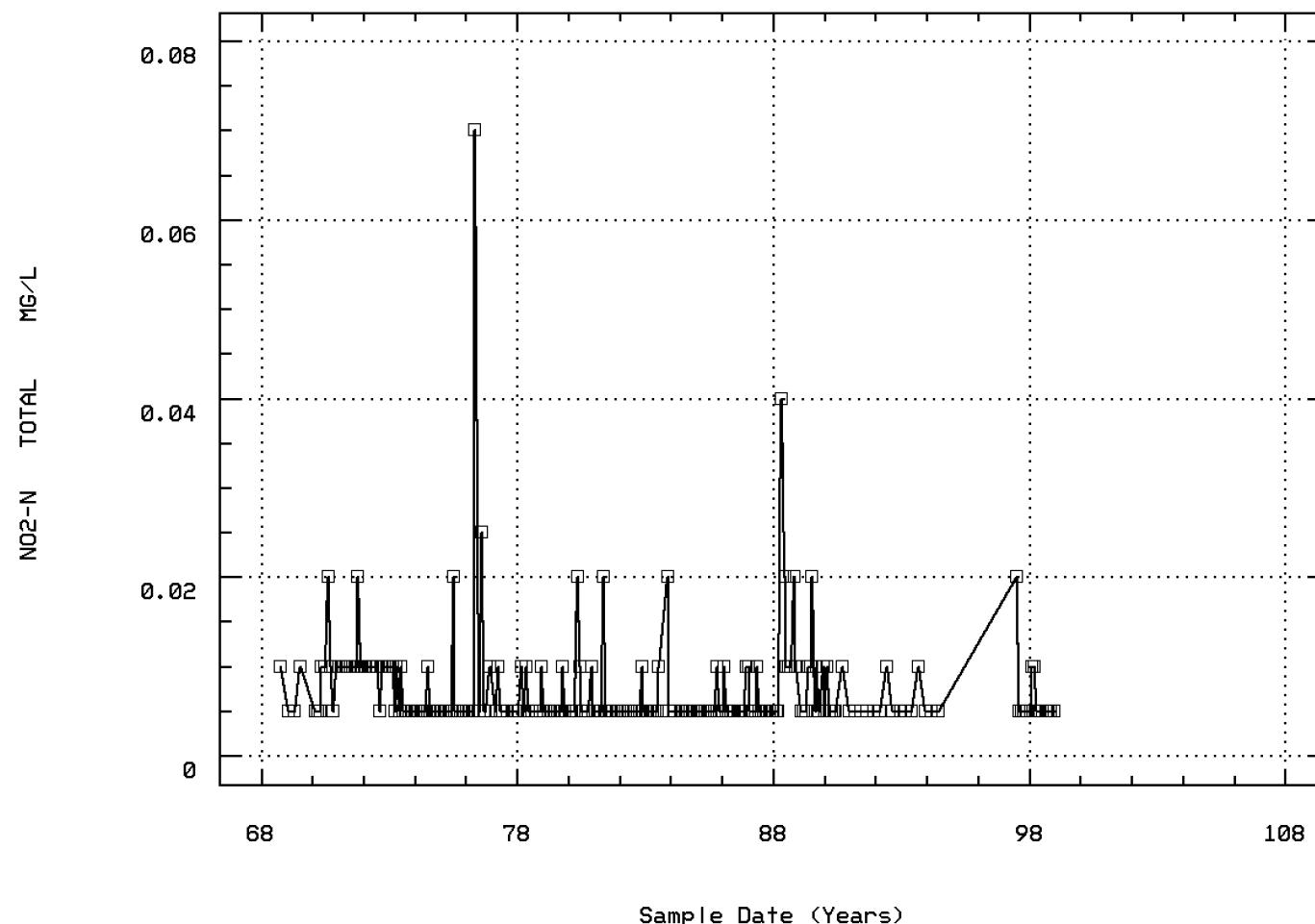
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00615

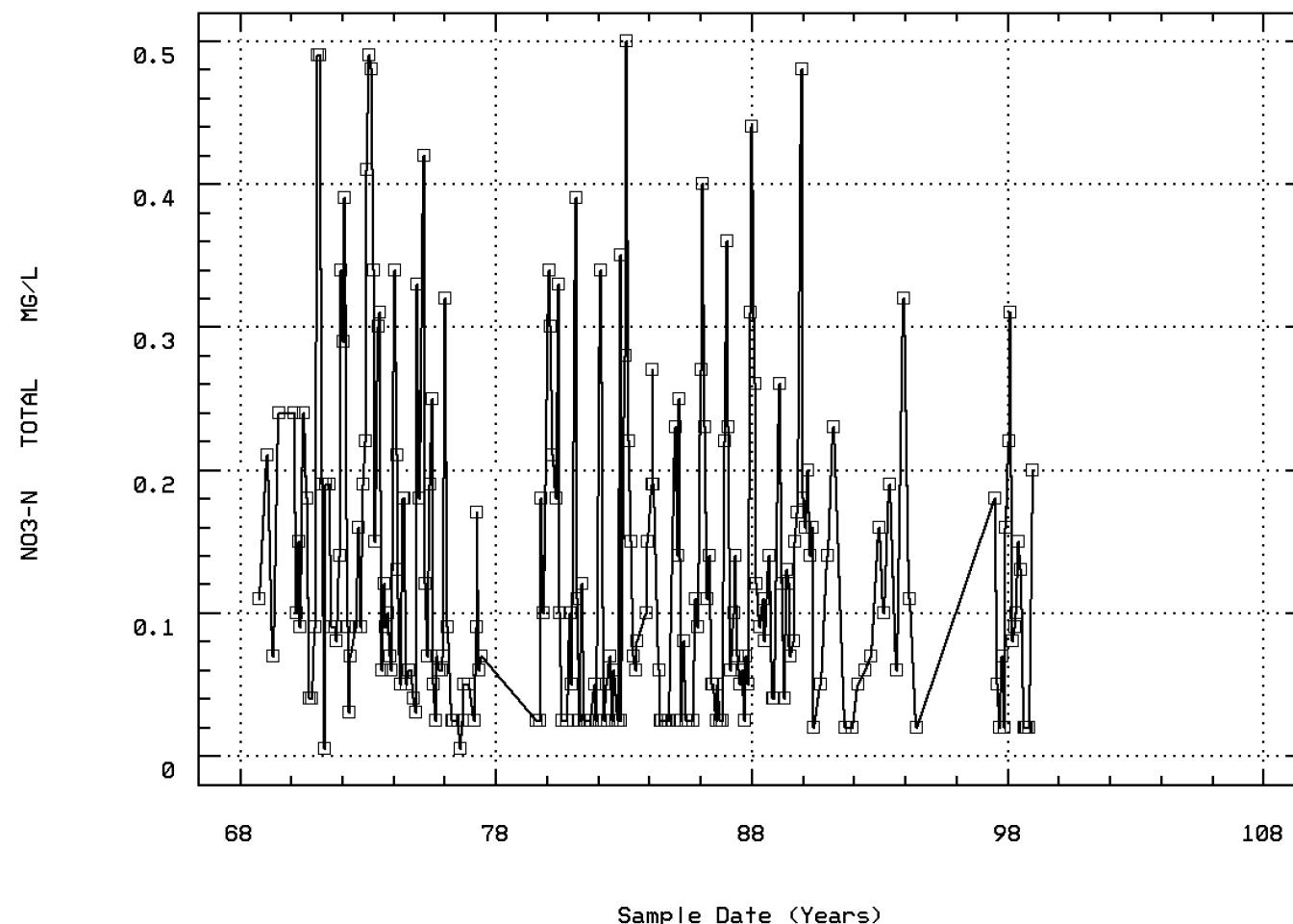
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00620

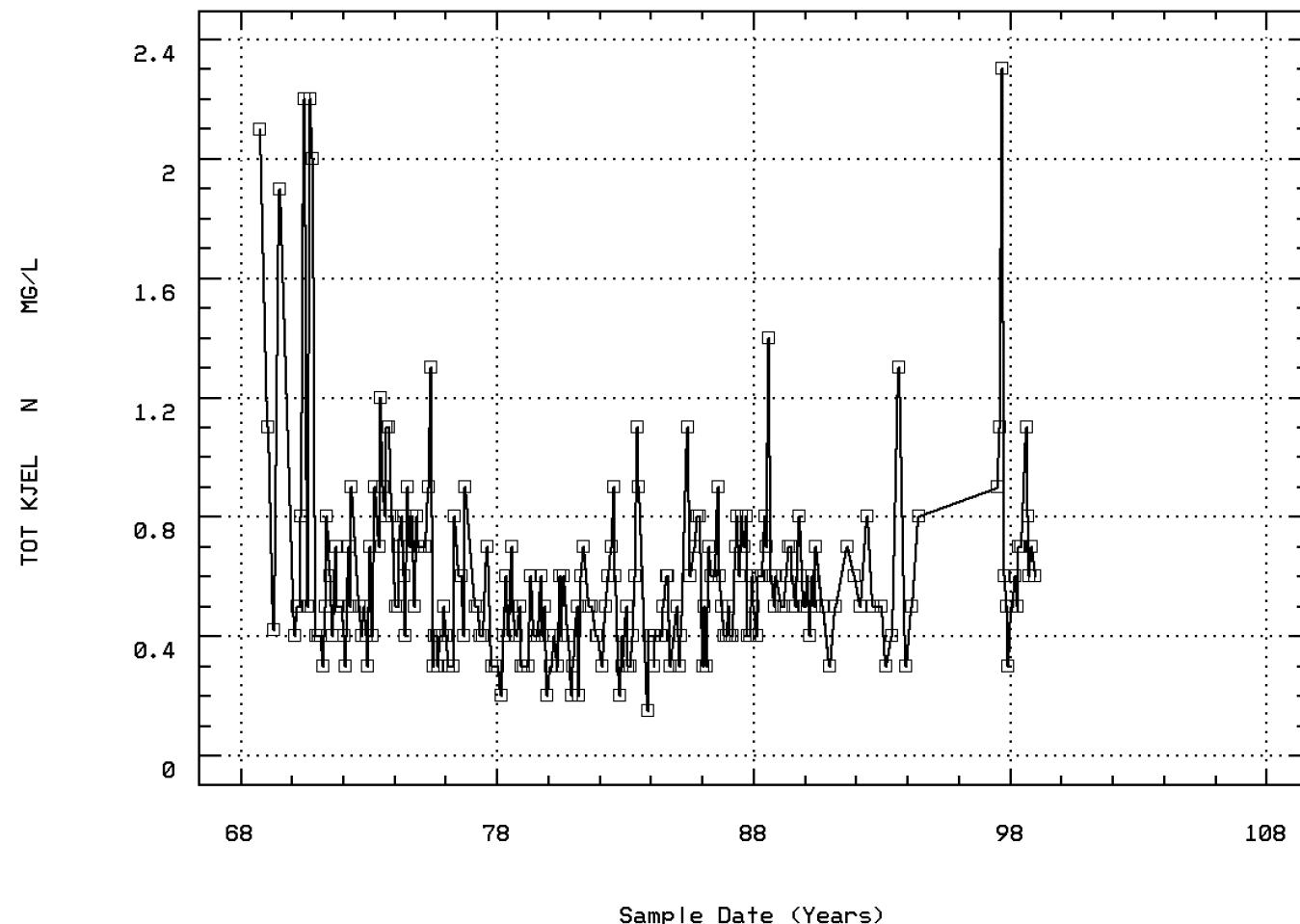
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00625

NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 360 BRIDGE

### Annual Analysis for 1967 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	2	18.05	18.05	22.2	13.9	34.445	5.869	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	2	1.6	1.6	1.8	1.4	0.08	0.283	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	1	6.31	6.31	6.31	6.31	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	2	140.5	140.5	176.	105.	2520.5	50.205	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	2	3.5	3.5	6.	1.	12.5	3.536	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1968 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	5	23.3	21.88	26.1	14.4	23.287	4.826	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	5	4.5	4.18	5.2	2.2	1.442	1.201	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	5	6.5	6.64	7.5	6.	0.298	0.546	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	5	6.5	6.429	7.5	6.	0.354	0.595	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	5	0.316	0.373	1.	0.032	0.137	0.37	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	1	193.	193.	193.	193.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	1	49.	49.	49.	49.	0.	0.	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	1	2.099	2.099	2.099	2.099	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	3	21.1	17.4	27.8	3.3	160.33	12.662	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	3	8.8	7.467	9.6	4.	9.173	3.029	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	3	2.2	2.433	3.	2.1	0.243	0.493	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	3	6.5	6.5	6.7	6.3	0.04	0.2	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	3	6.5	6.47	6.7	6.3	0.041	0.203	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	3	0.316	0.339	0.501	0.2	0.023	0.152	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	3	116.	127.333	162.	104.	937.333	30.616	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	3	30.	39.667	68.	21.	622.333	24.947	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	2	84.	84.	94.	74.	200.	14.142	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	2	7.5	7.5	8.	7.	0.5	0.707	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	3	5.	5.	6.	4.	1.	1.	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	2	2.5	2.5	4.	1.	4.5	2.121	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	3	0.16	0.137	0.17	0.08	0.002	0.049	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	3##	0.005	0.007	0.01	0.	0.005	0.003	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	3	0.21	0.173	0.24	0.07	0.008	0.091	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	3	1.099	1.139	1.899	0.42	0.548	0.74	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	10	17.5	15.66	23.3	5.	44.729	6.688	5.06	8.9	21.1	23.08
00300p OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	10	6.3	6.9	10.8	2.8	8.233	2.869	2.92	4.6	10.1	10.76
00310 BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	8	2.2	2.175	2.9	1.2	0.308	0.555	**	**	**	**
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.5	6.52	6.9	5.8	0.102	0.319	5.85	6.375	6.8	6.89
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.5	6.39	6.9	5.8	0.121	0.347	5.85	6.375	6.8	6.89
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	10	0.316	0.408	1.585	0.126	0.185	0.43	0.129	0.158	0.424	1.477
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	10	150.5	153.5	245	82.	2642.722	51.407	84.7	112.75	191.5	239.8
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	10	60.	56.9	74.	33.	165.878	12.879	33.7	46.75	66.5	73.4
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	10	97.5	95.6	184.	27.	1920.933	43.828	29.9	62.75	119.	178.1
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	7.	10.7	35.	3.	96.9	9.844	3.2	5.75	12.	33.6
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10	5.	6.4	17.	2.	22.711	4.766	2.	2.75	8.25	16.5
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	1.	5.3	19.	1.	51.344	7.166	1.	1.	9.	18.9
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	9	0.09	0.131	0.5	0.05	0.02	0.141	0.05	0.065	0.12	0.5
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9	0.01	0.009	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.02
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9	0.1	0.13	0.24	0.04	0.006	0.077	0.04	0.065	0.21	0.24
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	9	0.5	1.055	2.199	0.4	0.67	0.818	0.4	0.45	2.1	2.199
31616p FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
31616p LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	1 ##	1.699	1.699	1.699	1.699	0.	0.	**	**	**	**
31616p GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =		50.									
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	9	0.1	0.122	0.2	0.05	0.003	0.051	0.05	0.1	0.175	0.2
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	9	0.07	0.079	0.16	0.02	0.002	0.043	0.02	0.045	0.105	0.16

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### Annual Analysis for 1971 - Station RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	15.6	14.455	27.8	1.7	70.873	8.419	2.48	5.6	21.1	26.68
00300p OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	11	7.	7.109	10.8	3.6	8.403	2.899	3.68	4.2	10.	10.72
00310 BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	4	1.8	2.05	3.	1.6	0.437	0.661	**	**	**	**
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.655	7.8	6.	0.197	0.444	6.06	6.5	6.7	7.6
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.507	7.8	6.	0.221	0.47	6.06	6.5	6.7	7.6
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.2	0.311	1.	0.016	0.067	0.259	0.044	0.2	0.316	0.9
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	11	149.	139.636	178.	98.	983.655	31.363	99.	103.	171.	177.
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	47.	47.182	65.	20.	206.964	14.386	22.2	40.	62.	65.
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	95.	101.545	163.	51.	1082.873	32.907	53.	84.	126.	158.4
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	7.5	13.5	39.	4.	140.944	11.872	4.	5.5	19.25	38.
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10	4.	5.4	20.	2.	29.156	5.4	2.	2.	5.5	18.7
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	5.	8.1	22.	1.	62.767	7.923	1.	1.	15.25	21.7
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.07	0.085	0.23	0.01	0.006	0.076	0.014	0.03	0.11	0.228
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.01	0.011	0.02	0.01	0.	0.003	0.01	0.01	0.01	0.018
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.19	0.209	0.49	0.005	0.027	0.164	0.02	0.09	0.34	0.49
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	11	0.5	0.509	0.8	0.3	0.021	0.145	0.32	0.4	0.6	0.78
31616p FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	11	100.	781.818	5400.	50.	2672636.364	1634.82	50.	50.	400.	4720.
31616p LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	11	2.	2.264	3.732	1.699	0.488	0.698	1.699	1.699	2.602	3.646
31616p GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =		183.826									
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	11	0.1	0.132	0.3	0.05	0.005	0.072	0.06	0.1	0.2	0.28
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	11	0.1	0.085	0.13	0.05	0.001	0.028	0.052	0.06	0.1	0.128

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### Annual Analysis for 1972 - Station RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	12.2	13.791	28.9	2.2	68.415	8.271	2.88	7.2	21.7	27.56
00300p OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	10	9.	8.56	13.	4.2	10.212	3.196	4.24	5.5	11.6	12.86
00310 BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	1	2.4	2.4	2.4	0.	0.	**	**	**	**	**
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.536	6.8	6.2	0.033	0.18	6.22	6.5	6.7	6.78
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.501	6.8	6.2	0.034	0.184	6.22	6.5	6.7	6.78
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.316	0.315	0.631	0.158	0.02	0.141	0.167	0.2	0.316	0.605
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	11	108.	113.636	174.	77.	901.855	30.031	79.2	95.	126.	171.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	44.	47.909	96.	28.	367.691	19.175	28.2	33.	55.	89.6
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	64.	65.727	106.	13.	570.618	23.888	20.	55.	80.	102.2
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	7.	8.182	15.	3.	17.164	4.143	3.2	4.	12.	14.4
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	11	2.	3.545	12.	0.	13.673	3.698	0.2	1.	7.	11.
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	4.	4.636	11.	0.	13.255	3.641	0.2	2.	8.	10.8
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.04	0.044	0.2	0.005	0.003	0.055	0.005	0.01	0.04	0.172
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.01	0.01	0.01	0.005	0.	0.002	0.006	0.01	0.01	0.01
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	11	0.16	0.185	0.41	0.03	0.017	0.13	0.038	0.09	0.29	0.406
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	11	0.5	0.536	1.	0.3	0.055	0.234	0.3	0.4	0.7	0.98
31616p FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	11 ##	50.	154.545	400.	50.	25227.273	158.831	50.	50.	400.	400.
31616p LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	11 ##	1.699	2.	2.602	1.699	0.163	0.404	1.699	1.699	2.602	2.602
31616p GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =		100.									
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	11	0.1	0.086	0.2	0.05	0.002	0.045	0.05	0.05	0.1	0.18
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	11	0.06	0.073	0.13	0.03	0.001	0.033	0.032	0.05	0.1	0.128

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	12	16.95	15.375	25.	6.7	53.375	7.306	6.7	7.8	21.925	24.82
00300p OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	12	6.9	7.3	12.6	3.	9.553	3.091	3.06	4.4	9.75	12.12
00310 BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	3	2.	2.	2.	2.	0.	0.	**	**	**	**
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.6	6.6	7.	6.	0.06	0.245	6.15	6.5	6.775	6.94
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.6	6.525	7.	6.	0.066	0.257	6.15	6.5	6.775	6.94
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.251	0.299	1.	0.1	0.054	0.233	0.118	0.169	0.316	0.795
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	11	105.	112.364	166.	57.	956.855	30.933	62.6	97.	134.	162.8
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	43.	40.182	62.	21.	123.764	11.125	21.8	34.	46.	58.8
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	64.	72.182	121.	11.	1164.764	34.129	16.8	51.	107.	119.2
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	6.5	9.333	36.	1.	93.515	9.67	1.3	4.	14.	30.
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12	5.5	5.583	16.	0.	22.265	4.719	0.3	1.25	7.5	14.8
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	2.	4.091	24.	0.	49.091	7.006	0.	0.	4.	20.8
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.05	0.067	0.1	0.01	0.001	0.031	0.022	0.05	0.1	0.1
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.007	0.01	0.005	0.	0.002	0.005	0.005	0.01	0.01
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.135	0.214	0.49	0.06	0.026	0.162	0.06	0.075	0.333	0.487
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.9	0.883	1.199	0.4	0.049	0.221	0.49	0.725	1.074	1.169
31616p FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	12	100.	170.833	800.	50.	49299.242	222.034	50.	50.	175.	680.
31616p LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	12	2.	2.025	2.903	1.699	0.156	0.395	1.699	1.699	2.226	2.813
31616p GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =		105.946									
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	12 ##	0.075	0.1	0.2	0.05	0.004	0.064	0.05	0.05	0.175	0.2
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	12	0.1	0.08	0.1	0.05	0.001	0.025	0.05	0.05	0.1	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	10	15.	15.33	25.6	7.2	51.476	7.175	7.26	7.8	22.75	25.48
00300p OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	11	7.4	7.618	12.	3.4	7.124	2.669	3.56	5.8	10.4	11.76
00310 BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	1	2.	2.	2.	0.	0.	**	**	**	**	**
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.718	7.	6.5	0.056	0.236	6.5	6.5	7.	7.
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.7	6.665	7.	6.5	0.059	0.242	6.5	6.5	7.	7.
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.2	0.216	0.316	0.1	0.01	0.102	0.1	0.1	0.316	0.316
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	98.	102.083	141.	77.	463.72	21.534	77.3	85.25	120.5	138.3
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	29.	29.417	60.	10.	305.174	17.469	10.	12.25	46.25	57.6
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	72.	72.667	106.	35.	468.97	21.656	37.1	57.5	91.	103.6
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	6.5	10.417	42.	0.	153.902	12.406	0.	1.75	16.	36.9
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12	2.	4.417	18.	0.	31.356	5.6	0.	0.25	6.75	16.2
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	3.5	6.	24.	0.	60.	7.746	0.	0.	11.5	21.6
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.05	0.075	0.3	0.05	0.005	0.072	0.05	0.05	0.05	0.24
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.009
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.095	0.138	0.34	0.03	0.012	0.111	0.033	0.05	0.203	0.337
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.7	0.658	0.9	0.4	0.024	0.156	0.43	0.5	0.8	0.87
31616p FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	12 ##	50.	66.667	200.	50.	1969.697	44.381	50.	50.	50.	170.
31616p LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	12 ##	1.699	1.774	2.301	1.699	0.035	0.187	1.699	1.699	1.699	2.211
31616p GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			59.46								
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	12 ##	0.05	0.087	0.2	0.05	0.003	0.057	0.05	0.05	0.1	0.2
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	12 ##	0.05	0.054	0.1	0.05	0.	0.014	0.05	0.05	0.05	0.085

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	13	17.8	16.277	26.7	1.1	75.584	8.694	2.42	8.9	25.	26.26
00300p OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	13	6.4	6.277	12.	1.6	11.597	3.405	2.	3.2	8.5	12.
00310 BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	13	6.5	6.154	7.	1.	2.459	1.568	3.	6.5	6.65	7.
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	13	6.5	2.114	7.	1.	20.14	4.488	3.	6.5	6.65	7.
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	13	0.316	7692.595	100000.	0.1	769225981.812	27734.924	0.1	0.225	0.316	60000.4
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	105.	112.417	163.	75.	1096.083	33.107	75.3	82.	148.5	163.
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	12	51.5	54.833	127.	28.	623.242	24.965	30.1	40.25	59.75	107.2
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	12	52.5	57.583	116.	26.	824.811	28.72	27.8	33.25	76.5	110.6
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	9.	12.917	42.	3.	132.265	11.501	3.3	4.5	18.5	37.2
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12	2.	4.667	20.	0.	30.061	5.483	0.	2.	6.	16.4
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	4.	8.25	40.	0.	138.205	11.756	0.6	2.25	7.	35.2
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.05	0.075	0.2	0.05	0.003	0.058	0.05	0.05	0.05	0.2
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.006	0.02	0.005	0.	0.004	0.005	0.005	0.005	0.016
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.07	0.13	0.42	0.025	0.013	0.114	0.033	0.06	0.188	0.369
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.45	0.608	1.299	0.3	0.101	0.317	0.3	0.4	0.85	1.209
31616p FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	13 ##	50.	88.462	300.	50.	8814.103	93.883	50.	50.	50.	300.
31616p LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	13 ##	1.699	1.819	2.477	1.699	0.085	0.292	1.699	1.699	1.699	2.477
31616p GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			65.87								
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	12	0.1	0.108	0.2	0.05	0.004	0.06	0.05	0.05	0.175	0.2
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	12	0.05	0.062	0.1	0.03	0.001	0.023	0.033	0.05	0.085	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	9	17.2	16.044	23.3	6.1	37.823	6.15	6.1	10.	21.65	23.3
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	9	7.2	6.167	11.	1.3	10.755	3.279	1.3	3.2	8.5	11.
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	9	6.8	6.733	7.	6.5	0.055	0.235	6.5	6.5	7.	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	9	6.8	6.68	7.	6.5	0.058	0.241	6.5	6.5	7.	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	9	0.158	0.209	0.316	0.1	0.011	0.104	0.1	0.1	0.316	0.316
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	9	127.	134.111	188.	97.	1028.111	32.064	97.	110.5	161.5	188.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	9	72.	70.556	101.	47.	367.278	19.164	47.	48.5	85.	101.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	9	67.	63.556	105.	11.	961.528	31.009	11.	39.5	91.5	105.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	2.	3.056	8.	0.5	7.09	2.663	0.5	0.5	5.	8.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	9	2.	2.611	8.	0.	7.924	2.815	0.	0.5	5.	8.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	0.	0.611	4.	0.	1.674	1.294	0.	0.	0.5	4.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.05	0.061	0.1	0.05	0.	0.022	0.05	0.05	0.075	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.005	0.015	0.07	0.005	0.	0.022	0.005	0.005	0.018	0.07
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.025	0.068	0.32	0.005	0.01	0.097	0.005	0.025	0.07	0.32
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	8	0.5	0.538	0.9	0.3	0.051	0.226	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8 ##	50.	62.5	100.	50.	535.714	23.146	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8 ##	1.699	1.774	2.	1.699	0.019	0.139	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				59.46								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	8 ##	0.075	0.087	0.2	0.05	0.003	0.052	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	8	0.04	0.049	0.09	0.01	0.001	0.026	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	9	13.	14.622	28.	0.6	52.134	7.22	0.6	13.	18.5	28.
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	9	5.8	6.289	11.4	1.	10.711	3.273	1.	4.	9.4	11.4
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	9	6.8	6.856	8.	6.	0.358	0.598	6.	6.5	7.25	8.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	9	6.8	6.579	8.	6.	0.444	0.666	6.	6.5	7.25	8.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	9	0.158	0.264	1.	0.01	0.091	0.301	0.01	0.066	0.316	1.
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	10	119.	122.4	160.	88.	398.044	19.951	89.8	111.25	135.5	157.7
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	10	49.	51.6	72.	33.	154.933	12.447	33.6	42.	61.	71.5
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	10	71.5	70.8	117.	41.	407.956	20.198	42.3	58.5	77.25	113.4
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	5.	5.65	14.	0.5	24.503	4.95	0.5	0.5	9.25	13.9
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10	2.5	2.75	8.	0.	7.014	2.648	0.05	0.5	4.5	7.8
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	4.	3.333	10.	0.	11.687	3.419	0.	0.25	5.5	10.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.05	0.056	0.1	0.05	0.	0.017	0.05	0.05	0.05	0.1
00615p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.008	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	5	0.07	0.083	0.17	0.025	0.003	0.054	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	7	0.4	0.443	0.7	0.3	0.02	0.14	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9	100.	114.444	300.	50.	8127.778	90.154	50.	50.	165.	300.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9	2.	1.959	2.477	1.699	0.088	0.297	1.699	1.699	2.181	2.477
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				91.078								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	9 ##	0.05	0.122	0.6	0.05	0.033	0.18	0.05	0.05	0.1	0.6
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	9	0.04	0.048	0.09	0.02	0.001	0.024	0.02	0.025	0.065	0.09

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	15.5	15.5	29.	0.	90.	9.487	1.2	6.	24.	28.8
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	11	6.2	7.209	13.	3.8	9.037	3.006	3.8	5.1	10.6	12.56
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.573	7.	6.	0.09	0.3	6.08	6.4	6.8	7.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.478	7.	6.	0.1	0.316	6.08	6.4	6.8	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.316	0.333	1.	0.1	0.063	0.251	0.1	0.158	0.398	0.88
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	10	117.	123.4	220.	65.	1891.822	43.495	67.5	90.75	147.25	213.1
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	10	37.	40.2	84.	25.	274.178	16.558	25.2	31.5	42.75	80.1
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	10	69.5	83.2	175.	38.	1801.733	42.447	39.4	52.75	116.25	170.1
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	2.	4.55	18.	0.5	31.303	5.595	0.5	0.5	7.	17.2
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10	1.	1.75	4.	0.	2.681	1.637	0.05	0.5	4.	4.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	0.75	2.95	14.	0.	20.414	4.518	0.	0.375	6.	13.2
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.005	0.007	0.01	0.005	0.	0.002	0.005	0.005	0.01	0.01
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.4	0.43	0.7	0.2	0.022	0.149	0.21	0.3	0.525	0.69
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	10 ##	75.	145.	700.	50.	40250.	200.624	50.	50.	125.	650.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	10 ##	1.849	1.964	2.845	1.699	0.138	0.372	1.699	1.699	2.075	2.791
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			92.066								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	10 ##	0.05	0.075	0.2	0.05	0.002	0.049	0.05	0.05	0.1	0.19
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	10	0.04	0.047	0.11	0.005	0.001	0.027	0.008	0.03	0.06	0.105

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	8	14.5	15.125	29.	6.	70.982	8.425	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	5	134.	140.8	214.	89.	2513.7	50.137	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	9	7.6	6.989	10.5	2.3	7.819	2.796	2.3	4.6	9.3	10.5
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	4	1.5	1.5	2.	1.	0.333	0.577	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	5	20.	20.6	31.	5.	120.3	10.968	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	9	6.5	6.5	7.2	6.2	0.085	0.292	6.2	6.3	6.55	7.2
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	9	0.316	0.366	0.631	0.063	0.028	0.166	0.063	0.284	0.501	0.631
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	8	106.	103.875	133.	73.	312.982	17.691	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	8	37.5	133.	800.	29.	72666.	269.566	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	8	66.5	67.375	105.	35.	399.696	19.992	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	2.5	2.722	6.	0.5	4.132	2.033	0.5	1.	4.5	6.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	9	2.	2.389	5.	0.5	2.674	1.635	0.5	1.	3.75	5.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	1.	1.5	6.	0.	3.813	1.953	0.	0.	2.5	6.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	8 ##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	4 ##	0.063	0.083	0.18	0.025	0.005	0.074	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	9	0.4	0.411	0.6	0.2	0.019	0.136	0.2	0.3	0.55	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	5	0.1	0.08	0.1	0.1	0.05	0.001	0.027	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	4	0.055	0.053	0.06	0.04	0.	0.01	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	5	14.	14.	21.	9.	21.	4.583	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8	100.	181.25	600.	50.	36383.929	190.746	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8	2.	2.082	2.778	1.699	0.163	0.404	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			120.685								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	4 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	4	0.035	0.034	0.06	0.005	0.001	0.026	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1980 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	14.	15.682	27.5	3.5	98.764	9.938	3.8	5.	27.	27.4
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	9	195.	191.222	267.	115.	2869.944	53.572	115.	147.	244.5	267.
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	11	7.4	6.364	10.4	1.1	9.825	3.134	1.44	3.7	9.6	10.32
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	10	1.5	1.6	3.	1.	0.489	0.699	1.	1.	2.	2.9
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	10	21.5	21.8	31.	16.	23.956	4.894	16.	17.5	24.75	30.6
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.4	6.509	7.5	5.8	0.189	0.435	5.9	6.3	6.6	7.4
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.4	6.351	7.5	5.8	0.216	0.465	5.9	6.3	6.6	7.4
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.398	0.445	1.585	0.032	0.167	0.409	0.045	0.251	0.501	1.368
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	5.	8.55	28.	2.5	64.414	8.026	2.5	2.5	12.75	26.7
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10	4.	4.55	8.	2.5	4.636	2.153	2.5	2.5	7.	7.9
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	10	2.5	5.	21.	0.	35.444	5.954	0.2	2.375	5.5	19.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.005	0.008	0.02	0.005	0.	0.005	0.005	0.01	0.019	0.339
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.14	0.166	0.34	0.025	0.015	0.124	0.025	0.044	0.308	0.339
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.35	0.38	0.6	0.2	0.017	0.132	0.21	0.3	0.45	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	10 ##	0.075	0.085	0.2	0.05	0.002	0.047	0.05	0.05	0.1	0.19
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	10	0.05	0.05	0.09	0.02	0.001	0.024	0.02	0.028	0.065	0.089
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	10	13.	13.	18.	8.	10.889	3.3	8.2	10.	16.25	17.9
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9 ##	50.	155.556	900.	50.	78402.778	280.005	50.	50.	100.	900.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9 ##	1.699	1.905	2.954	1.699	0.172	0.414	1.699	1.699	2.	2.954
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	80.416								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	9	19.	17.944	29.5	6.	85.215	9.231	6.	7.	26.25	29.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	10	251.	317.5	998.	180.	58043.611	240.922	183.3	226.5	276.5	926.3
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	10	5.1	5.77	11.2	0.8	14.267	3.777	0.95	2.675	9.3	11.1
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	10	2.	1.9	4.	1.	0.767	0.876	1.	1.	2.	3.8
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	10	23.	22.3	32.	12.	42.678	6.533	12.5	17.	27.25	31.9
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.65	6.55	7.	6.	0.169	0.412	6.	6.	6.925	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.647	6.371	7.	6.	0.205	0.453	6.	6.	6.925	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	10	0.225	0.425	1.	0.1	0.162	0.402	0.1	0.119	1.	1.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10 ##	3.75	6.55	21.	2.5	35.469	5.956	2.5	2.5	9.5	20.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10 ##	2.5	3.35	8.	2.	4.003	2.001	2.	2.	2.375	3.75
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	10 ##	2.5	4.45	15.	2.	16.136	4.017	2.05	2.5	5.5	14.2
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.005	0.007	0.02	0.005	0.	0.005	0.005	0.005	0.005	0.019
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.025	0.082	0.39	0.025	0.013	0.114	0.025	0.025	0.113	0.363
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.5	0.58	1.	0.2	0.066	0.257	0.22	0.4	0.775	1.
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	10	0.1	0.09	0.2	0.05	0.002	0.046	0.05	0.05	0.1	0.19
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	10	0.05	0.063	0.12	0.01	0.001	0.039	0.012	0.03	0.103	0.119
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	10	14.	13.3	19.	5.	24.011	4.9	5.3	8.75	18.25	19.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	10 ##	75.	265.	1400.	50.	181138.889	425.604	50.	50.	350.	1310.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	10 ##	1.849	2.082	3.146	1.699	0.268	0.518	1.699	1.699	2.533	3.101
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	120.7								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1982 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	10	14.	15.5	26.	5.	75.778	8.705	5.05	7.	25.5	25.95
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	9	193.	209.111	294.	133.	3479.111	58.984	133.	155.5	264.5	294.
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	10	6.05	6.	10.2	2.	10.156	3.187	2.	2.375	9.475	10.15
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	9	2.	1.778	2.	1.	0.194	0.441	1.	1.5	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	9	25.	25.444	39.	12.	53.028	7.282	12.	22.	29.	39.
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.5	6.48	6.5	6.3	0.004	0.063	6.32	6.5	6.5	6.5
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.5	6.475	6.5	6.3	0.004	0.063	6.32	6.5	6.5	6.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	10	0.316	0.335	0.501	0.316	0.003	0.058	0.316	0.316	0.483	
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	5.	5.444	12.	2.5	11.153	3.34	2.5	2.5	7.5	12.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	9	2.5	3.556	8.	2.	5.153	2.27	2.	2.25	5.	8.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	2.5	3.	6.	0.	3.125	1.768	0.	2.25	4.5	6.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.05	0.06	0.15	0.05	0.001	0.032	0.05	0.05	0.05	0.14
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9	0.05	0.108	0.35	0.025	0.018	0.136	0.025	0.025	0.205	0.35
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	9	0.5	0.5	0.9	0.2	0.05	0.224	0.2	0.3	0.65	0.9
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	9 ##	0.05	0.083	0.2	0.05	0.003	0.05	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	9	0.05	0.377	3.	0.02	0.968	0.984	0.02	0.025	0.08	3.
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	9	11.	10.	14.	4.	11.	3.317	4.	7.	12.5	14.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9 ##	50.	350.	2100.	50.	462500.	680.074	50.	50.	350.	2100.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9 ##	1.699	2.066	3.322	1.699	0.346	0.588	1.699	1.699	2.389	3.322
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		116.449							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1983 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	9	10.5	10.333	23.5	-3.5	75.688	8.7	3.	5.75	18.5	23.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	9	139.	154.889	289.	67.	5259.111	72.52	67.	93.	207.	289.
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	9	8.2	7.989	15.8	1.8	19.811	4.451	1.8	4.05	11.	15.8
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	7	2.	2.143	3.	1.	0.81	0.9	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	9	19.	20.667	29.	14.	27.5	5.244	14.	16.5	26.	29.
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	9	6.3	6.3	6.7	5.8	0.1	0.316	5.8	6.	6.6	6.7
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	9	6.3	6.198	6.7	5.8	0.112	0.334	5.8	6.	6.6	6.7
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	9	0.501	0.633	1.585	0.2	0.218	0.467	0.2	0.258	1.	1.585
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	9 ##	2.5	4.889	18.	2.5	25.924	5.092	2.5	2.5	5.5	18.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	9 ##	2.5	3.778	11.	2.5	8.007	2.83	2.5	2.5	4.	11.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	9 ##	2.5	2.778	7.	0.	3.257	1.805	0.	2.5	2.75	7.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.05	0.056	0.1	0.05	0.	0.017	0.05	0.05	0.05	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9 ##	0.005	0.007	0.02	0.005	0.	0.005	0.005	0.005	0.008	0.02
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9	0.15	0.179	0.5	0.06	0.02	0.141	0.06	0.075	0.25	0.5
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	9	0.4	0.517	1.1	0.15	0.094	0.306	0.15	0.3	0.75	1.1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	9 ##	0.05	0.083	0.2	0.05	0.003	0.05	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	9	0.03	0.044	0.1	0.01	0.001	0.031	0.01	0.025	0.07	0.1
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	9	10.	10.	15.	6.	10.25	3.202	6.	7.	13.	15.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8 ##	50.	225.	1300.	50.	191428.571	437.526	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8 ##	1.699	1.951	3.114	1.699	0.265	0.515	**	**	**	**
	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		89.351							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1984 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	9	16.5	14.667	24.	0.5	67.75	8.231	0.5	7.	21.75	24.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	7	132.	132.	205.	69.	2604.	51.029	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	9	3.6	5.5	12.	0.4	17.308	4.16	0.4	2.1	9.7	12.
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	9	2.	2.333	5.	1.	2.	1.414	1.	1.	3.5	5.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	9	18.	22.222	33.	13.	80.694	8.983	13.	14.	32.	33.
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	8	6.105	6.123	6.5	5.57	0.09	0.299	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	8	6.105	6.027	6.5	5.57	0.1	0.316	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	8	0.785	0.941	2.692	0.316	0.571	0.756	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	5.	12.611	60.	2.5	356.424	18.879	2.5	2.5	15.	60.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	9	3.	6.833	25.	2.	55.313	7.437	2.	2.5	9.	25.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	2.5	6.611	35.	0.	125.924	11.222	0.	1.	7.5	35.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	9##	0.05	0.05	0.05	0.05	0.05	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9##	0.025	0.093	0.27	0.025	0.009	0.096	0.025	0.025	0.19	0.27
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	9	0.4	0.433	0.6	0.3	0.013	0.112	0.3	0.35	0.55	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	9##	0.05	0.117	0.4	0.05	0.014	0.117	0.05	0.05	0.15	0.4
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	9	0.08	0.109	0.32	0.02	0.01	0.1	0.02	0.03	0.175	0.32
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	9	10.	11.333	18.	6.	16.75	4.093	6.	8.	15.	18.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9##	50.	72.222	200.	50.	2569.444	50.69	50.	50.	75.	200.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	9##	1.699	1.799	2.301	1.699	0.045	0.213	1.699	1.699	1.849	2.301
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	62.996								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1985 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	11	16.	15.709	29.	4.	63.601	7.975	4.3	9.	22.	27.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	11	166.	158.545	237.	94.	1808.873	42.531	96.8	118.	192.	229.8
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	11	6.5	6.545	12.5	1.6	10.443	3.232	1.66	4.5	8.9	11.92
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	10	2.	2.	4.	1.	1.333	1.155	1.	1.	2.5	4.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	11	26.	26.091	35.	18.	33.891	5.822	18.4	20.	32.	34.8
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.436	7.	5.6	0.169	0.411	5.64	6.3	6.7	6.96
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	11	6.5	6.224	7.	5.6	0.218	0.467	5.64	6.3	6.7	6.96
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	11	0.316	0.597	2.512	0.1	0.568	0.754	0.112	0.2	0.501	2.326
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	1	111.	111.	111.	111.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	1	91.	91.	91.	91.	0.	0.	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	5.	7.273	21.	2.5	33.918	5.824	2.5	2.5	10.	19.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	11	4.	5.364	11.	2.5	8.755	2.959	2.5	2.5	8.	10.4
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	2.5	2.818	10.	0.	7.464	2.732	0.2	1.	3.	9.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.085	0.1	0.25	0.025	0.007	0.084	0.025	0.025	0.163	0.248
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	8	0.65	0.65	1.1	0.3	0.066	0.256	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	8##	0.05	0.156	0.6	0.05	0.037	0.192	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	10	0.05	0.073	0.25	0.02	0.005	0.072	0.02	0.028	0.095	0.239
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	11	11.	12.091	18.	7.	13.491	3.673	7.4	9.	15.	18.
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	11##	50.	250.	1100.	50.	159000.	398.748	50.	50.	200.	1080.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	11##	1.699	2.021	3.041	1.699	0.28	0.53	1.699	1.699	2.301	3.033
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	105.047								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1986 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	12	17.	14.892	24.5	3.	63.35	7.959	3.6	6.25	22.65	24.35
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	12	190.5	191.833	310.	118.	2229.97	47.223	123.7	171.5	207.5	283.3
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	12	3.75	5.1	11.	0.4	12.949	3.598	0.73	2.025	9.075	10.58
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	12	1.5	1.667	3.	1.	0.606	0.778	1.	1.	2.	3.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	12	23.	21.417	28.	14.	21.174	4.602	14.3	17.	25.	27.4
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.775	6.796	8.09	5.5	0.519	0.721	5.65	6.525	6.89	8.078
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.775	6.323	8.09	5.5	0.763	0.874	5.65	6.525	6.89	8.078
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.168	0.475	3.162	0.008	0.783	0.885	0.008	0.129	0.3	2.514
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12 ##	2.5	5.792	22.	2.5	33.021	5.746	2.5	2.5	7.75	18.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12 ##	2.5	4.375	10.	2.5	7.369	2.715	2.5	2.5	5.75	9.7
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	12 ##	2.5	3.083	12.	0.	9.22	3.036	0.3	2.	2.5	9.9
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.05	0.05	0.05	0.05	0.05	0.	0.05	0.05	0.05	0.05
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.08	0.133	0.4	0.025	0.015	0.122	0.025	0.031	0.228	0.361
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.55	0.533	0.9	0.3	0.03	0.172	0.3	0.4	0.6	0.84
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	12	0.1	0.121	0.3	0.05	0.007	0.084	0.05	0.05	0.2	0.27
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	12	0.045	0.059	0.25	0.01	0.004	0.064	0.01	0.023	0.068	0.199
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	12	8.	8.833	15.	6.	7.242	2.691	6.	7.25	9.75	14.4
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	11	100.	386.364	2500.	50.	555045.455	745.014	50.	50.	300.	2180.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	11	2.	2.12	3.398	1.699	0.339	0.582	1.699	1.699	2.477	3.309
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	131.94								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1987 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	13	16.9	16.792	28.2	3.	67.484	8.215	4.6	10.	25.3	27.16
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	12	159.5	172.167	276.	112.	2129.242	46.144	120.1	141.5	199.5	264.
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	13	4.5	4.608	10.1	1.2	8.761	2.96	1.32	1.8	7.15	9.42
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	12	1.	1.5	4.	0.5	1.136	1.066	0.5	1.	2.	3.7
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	12	24.	24.75	39.	15.	54.023	7.35	15.	18.75	30.75	37.2
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	13	7.	7.045	7.86	6.6	0.176	0.419	6.612	6.635	7.265	7.82
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	13	7.	6.902	7.86	6.6	0.198	0.445	6.612	6.635	7.265	7.82
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	13	0.1	0.125	0.251	0.014	0.008	0.087	0.015	0.057	0.232	0.244
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12 ##	3.75	5.083	12.	2.5	10.129	3.183	2.5	2.5	7.	11.1
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12 ##	2.5	3.583	7.	2.5	3.538	1.881	2.5	2.5	5.25	7.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	12 ##	2.5	3.292	8.	2.5	3.203	1.79	2.5	2.5	2.875	7.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.05	0.075	0.2	0.05	0.003	0.058	0.05	0.05	0.05	0.2
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12 ##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.07	0.127	0.36	0.025	0.012	0.112	0.033	0.053	0.208	0.345
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.6	0.592	0.8	0.4	0.028	0.168	0.4	0.4	0.775	0.8
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	12	0.1	0.096	0.2	0.05	0.003	0.054	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	12	0.045	0.052	0.1	0.01	0.001	0.031	0.013	0.023	0.085	0.097
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	8	10.	9.875	13.	7.	5.839	2.416	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	12 ##	50.	70.833	200.	50.	2026.515	45.017	50.	50.	87.5	170.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	12 ##	1.699	1.799	2.301	1.699	0.038	0.196	1.699	1.699	1.925	2.211
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	62.996								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1988 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	13	13.9	14.7	27.	1.	65.183	8.074	3.6	8.15	21.9	26.6
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	10	168.5	201.5	452.	140.	8828.056	93.958	140.7	151.5	203.	432.5
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	13	5.6	5.638	11.8	1.7	8.143	2.854	1.9	3.45	7.05	10.76
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	9	2.	1.556	2.	1.	0.278	0.527	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	10	23.5	24.5	34.	17.	21.611	4.649	17.4	21.75	26.75	33.5
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	13	6.6	6.471	8.41	3.3	1.292	1.136	4.396	6.105	7.05	7.882
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	13	6.6	4.41	8.41	3.3	5.89	2.427	4.396	6.105	7.05	7.882
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	13	0.251	38.868	501.187	0.004	19295.951	138.91	0.035	0.09	0.794	301.077
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	10 ##	2.5	2.85	5.	1.	1.114	1.055	1.15	2.5	3.25	4.9
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	10 ##	2.5	2.35	3.	1.	0.558	0.747	1.	2.125	3.	3.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	10 ##	2.5	1.85	3.	0.	1.169	1.081	0.05	0.5	2.5	2.95
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.065	0.084	0.2	0.02	0.004	0.061	0.022	0.04	0.12	0.198
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.01	0.014	0.04	0.005	0.	0.011	0.005	0.005	0.02	0.038
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	9	0.11	0.147	0.44	0.04	0.016	0.128	0.04	0.06	0.2	0.44
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.6	0.67	1.4	0.4	0.078	0.279	0.41	0.5	0.725	1.34
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	10	0.1	0.135	0.2	0.05	0.003	0.058	0.055	0.1	0.2	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	10	0.055	0.059	0.12	0.02	0.001	0.031	0.021	0.03	0.083	0.117
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	7	8.4	8.657	12.1	6.8	3.11	1.763	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	10 ##	50.	119.	490.	50.	19276.667	138.84	50.	50.	125.	461.
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	10 ##	1.699	1.919	2.69	1.699	0.116	0.341	1.699	1.699	2.075	2.651
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	82.89								

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1989 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	10	16.1	16.31	27.1	0.2	88.148	9.389	0.48	10.2	24.85	26.92
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	7	168.	293.	1124.	99.	136019.	368.808	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	10	5.7	6.63	12.6	2.5	14.105	3.756	2.53	3.25	10.8	12.51
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	11	2.	2.091	3.	1.	0.891	0.944	1.	1.	3.	3.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	11	34.	30.636	40.	16.	77.655	8.812	17.2	22.	40.	40.
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.765	6.937	7.77	6.38	0.279	0.528	6.392	6.508	7.56	7.767
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	10	6.764	6.734	7.77	6.38	0.325	0.57	6.392	6.507	7.56	7.767
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	10	0.172	0.184	0.417	0.017	0.019	0.137	0.017	0.028	0.311	0.407
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	9	124.	167.778	590.	72.	25538.444	159.808	72.	104.5	140.5	590.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	9	32.	32.222	52.	20.	99.944	9.997	20.	24.	38.	52.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	9	87.	135.556	570.	40.	27008.028	164.341	40.	67.	108.	570.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	4.	4.	7.	1.	2.6	1.612	1.2	3.	5.	6.6
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	11	2.	2.182	5.	1.	1.564	1.25	1.	1.	3.	4.6
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	11	2.	1.955	6.	0.5	2.673	1.635	0.5	0.5	3.	5.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.05	0.055	0.12	0.02	0.001	0.033	0.02	0.02	0.083	0.117
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10 ##	0.008	0.009	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.019
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	10	0.125	0.162	0.48	0.04	0.016	0.127	0.043	0.078	0.193	0.458
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	10	0.6	0.6	0.8	0.5	0.011	0.105	0.5	0.5	0.7	0.79
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	10	0.1	0.078	0.1	0.03	0.001	0.029	0.032	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	10	0.06	0.058	0.1	0.02	0.001	0.03	0.021	0.03	0.09	0.099
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	11	9.	9.309	12.8	5.3	4.799	2.191	5.58	8.1	10.8	12.58
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8 ##	50.	168.75	600.	50.	44955.357	212.027	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	8 ##	1.699	1.984	2.778	1.699	0.203	0.45	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	96.468								

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### Annual Analysis for 1990 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	8	11.3	13.5	23.2	6.9	41.823	6.467	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	1	179.	179.	179.	0.	0.	0.	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	8	9.95	8.813	12.5	3.8	12.616	3.552	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	9	2.	1.556	2.	1.	0.278	0.527	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	8	21.	23.125	38.	16.	59.554	7.717	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	8	6.98	7.126	7.91	6.78	0.15	0.387	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	8	6.98	7.021	7.91	6.78	0.162	0.403	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	8	0.105	0.095	0.166	0.012	0.003	0.052	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	9	107.	109.556	133.	93.	173.528	13.173	93.	100.	120.5	133.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	9	30.	32.778	43.	22.	65.694	8.105	22.	26.	41.5	43.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	9	83.	80.111	96.	57.	175.861	13.261	57.	69.	91.5	96.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	5.	4.833	7.	0.5	4.875	2.208	0.5	3.5	7.	7.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	9	2.	1.889	3.	0.5	0.799	0.894	0.5	1.25	2.5	3.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	9	3.	3.056	5.	0.5	3.403	1.845	0.5	1.	5.	5.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	8##	0.02	0.028	0.05	0.02	0.	0.014	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	8##	0.005	0.006	0.01	0.005	0.	0.002	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	8	0.15	0.131	0.2	0.02	0.004	0.063	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	8	0.5	0.513	0.7	0.3	0.016	0.125	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	8	0.1	0.081	0.1	0.05	0.001	0.026	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	8	0.04	0.049	0.09	0.02	0.001	0.023	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	8	8.6	8.6	10.8	5.2	3.237	1.799	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	7##	50.	78.571	200.	50.	3214.286	56.695	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	7##	1.699	1.828	2.301	1.699	0.056	0.237	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		67.295									
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**

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### Annual Analysis for 1991 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	4	18.25	16.9	23.4	7.7	58.553	7.652	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	2	6.4	6.4	9.7	3.1	21.78	4.667	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	4	2.5	6.5	20.	1.	81.667	9.037	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	3	21.	22.667	29.	18.	32.333	5.686	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.42	6.443	6.95	5.98	0.157	0.397	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.42	6.319	6.95	5.98	0.178	0.422	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	4	0.38	0.48	1.047	0.112	0.159	0.399	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	4	124.	123.5	133.	113.	67.667	8.226	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	4	40.5	39.5	50.	27.	89.667	9.469	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	4	79.	84.	106.	72.	236.667	15.384	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	4##	3.25	7.	20.	1.5	77.833	8.822	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	4##	2.25	2.5	4.	1.5	1.225	**	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	4##	1.75	5.25	16.	1.5	51.417	7.171	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	3##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	3##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	3##	0.02	0.09	0.23	0.02	0.015	0.121	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	3	0.6	0.6	0.7	0.5	0.01	0.1	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	3	0.1	0.093	0.11	0.07	0.	0.021	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	3	9.5	9.2	10.9	7.2	3.49	1.868	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	3	200.	250.	500.	50.	52500.	229.129	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	3	2.301	2.233	2.699	1.699	0.253	0.503	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		170.998									
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	3	0.07	0.06	0.08	0.03	0.001	0.026	**	**	**	**

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### Annual Analysis for 1992 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	5	11.3	13.38	23.2	3.1	84.817	9.21	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	4	1.5	1.5	2.	1.	0.333	0.577	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	4	22.5	25.5	39.	18.	89.667	9.469	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	5	6.26	6.236	6.42	5.9	0.041	0.202	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	5	6.26	6.194	6.42	5.9	0.043	0.207	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	5	0.55	0.64	1.259	0.38	0.126	0.355	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	4	100.5	96.75	122.	64.	616.917	24.838	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	4	26.	24.5	39.	7.	190.333	13.796	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	4	70.5	72.25	91.	57.	198.25	14.08	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	4	4.	4.25	6.	3.	1.583	1.258	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	4	1.	1.5	3.	1.	1.	1.	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	4	3.	2.75	3.	2.	0.25	0.5	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	4	0.04	0.035	0.04	0.02	0.	0.01	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	4##	0.005	0.006	0.01	0.005	0.	0.003	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	4	0.065	0.085	0.16	0.05	0.003	0.051	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	4	0.5	0.575	0.8	0.5	0.023	0.15	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	4	0.07	0.07	0.1	0.04	0.001	0.029	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	4	7.7	8.95	14.8	5.6	17.317	4.161	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	3##	50.	66.667	100.	50.	833.333	28.868	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	3##	1.699	1.799	2.	1.699	0.03	0.174	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			62.996								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	4	0.05	0.053	0.09	0.02	0.001	0.033	**	**	**	**

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### Annual Analysis for 1993 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	4	16.45	16.25	27.4	4.7	109.537	10.466	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	4	1.5	2.25	5.	1.	3.583	1.893	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	4	20.5	24.75	42.	16.	138.25	11.758	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.21	6.245	6.6	5.96	0.07	0.265	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.21	6.19	6.6	5.96	0.074	0.272	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	4	0.617	0.645	1.096	0.251	0.12	0.347	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	4	125.	139.	200.	106.	1904.667	43.642	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	4	37.	38.5	57.	23.	198.333	14.083	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	4	94.5	100.5	143.	70.	1304.333	36.116	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	4##	4.25	12.	38.	1.5	307.167	17.526	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	4##	2.25	6.	18.	1.5	64.5	8.031	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	4##	2.75	6.75	20.	1.5	79.417	8.912	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	4##	0.02	0.053	0.15	0.02	0.004	0.065	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	4##	0.005	0.006	0.01	0.005	0.	0.003	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	4	0.145	0.168	0.32	0.06	0.013	0.115	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	4	0.35	0.575	1.3	0.3	0.236	0.486	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	4	0.06	0.113	0.3	0.03	0.016	0.127	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	4	8.6	9.8	16.	6.	19.253	4.388	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	4##	50.	62.5	100.	50.	625.	25.	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	4##	1.699	1.774	2.	1.699	0.023	0.151	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			59.46								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	4	0.04	0.065	0.17	0.01	0.005	0.072	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	4	19.2	19.6	27.3	12.7	49.847	7.06	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	1	122.	122.	122.	0.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	2	1.8	1.8	2.6	1.	1.28	1.131	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	2	28.	28.	32.	24.	32.	5.657	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.29	6.295	6.38	6.22	0.004	0.066	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	4	6.29	6.291	6.38	6.22	0.004	0.066	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	4	0.513	0.511	0.603	0.417	0.006	0.076	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	2	109.5	109.5	141.	78.	1984.5	44.548	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	2	35.5	35.5	47.	24.	264.5	16.263	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	2	74.	74.	94.	54.	800.	28.284	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	2	8.	8.	10.	6.	8.	2.828	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	2	3.5	3.5	4.	3.	0.5	0.707	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	2	4.5	4.5	6.	3.	4.5	2.121	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	2##	0.045	0.045	0.07	0.02	0.001	0.035	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	2##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	2##	0.065	0.065	0.11	0.02	0.004	0.064	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	2	0.65	0.65	0.8	0.5	0.045	0.212	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	2	0.11	0.11	0.18	0.04	0.01	0.099	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	2	9.45	9.45	10.	8.9	0.605	0.778	**	**	**	**
31616p	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	2##	50.	50.	50.	50.	0.	0.	**	**	**	**
31616p	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	2##	1.699	1.699	1.699	1.699	0.	0.	**	**	**	**
31616p	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			50.									
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	2	0.045	0.045	0.07	0.02	0.001	0.035	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	5	13.2	14.96	26.7	5.5	78.118	8.838	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	5	210.	214.2	230.	202.	170.2	13.046	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	6##	1.	3.833	16.	1.	36.167	6.014	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/14/98	6	21.5	23.333	34.	13.	83.867	9.158	**	**	**	**
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	5	6.29	6.32	6.78	5.97	0.116	0.34	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	5	6.29	6.225	6.78	5.97	0.127	0.357	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	5	0.513	0.596	1.072	0.166	0.156	0.394	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	6	148.	146.	185.	111.	657.2	25.636	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	6	37.5	45.167	70.	28.	342.167	18.498	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	6	101.5	100.833	121.	80.	254.967	15.968	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	6	6.	8.167	19.	4.	33.367	5.776	**	**	**	**
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	6##	1.5	3.833	14.	1.5	25.167	5.017	**	**	**	**
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	6	3.5	4.	9.	1.5	7.9	2.811	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	6##	0.045	0.083	0.26	0.02	0.009	0.094	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	6##	0.005	0.008	0.02	0.005	0.	0.006	**	**	**	**
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	6	0.06	0.083	0.18	0.02	0.005	0.07	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	6	0.75	0.95	2.3	0.3	0.519	0.72	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	6	0.095	0.137	0.41	0.04	0.02	0.14	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	6	0.065	0.083	0.2	0.04	0.004	0.061	**	**	**	**

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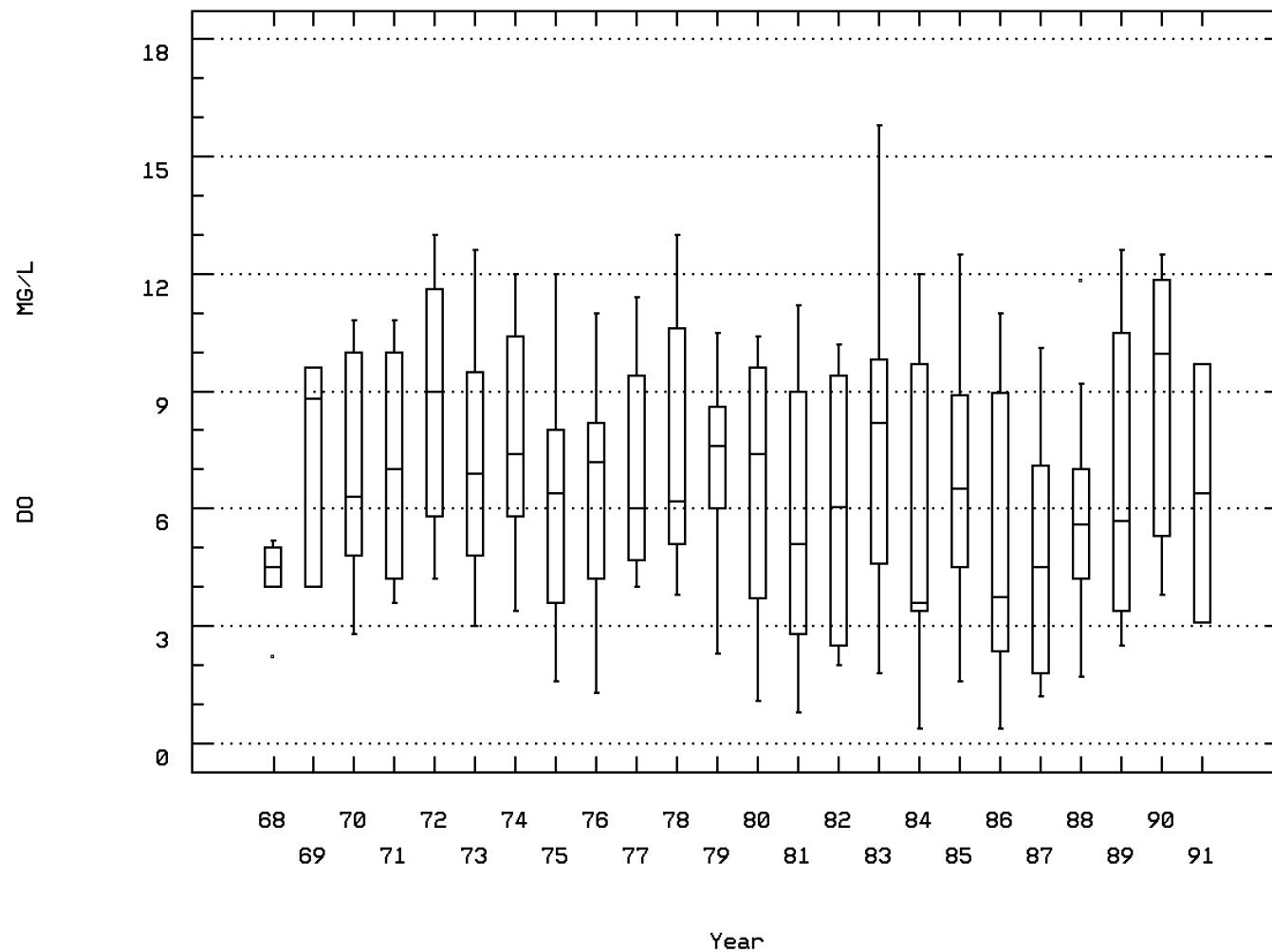
### Annual Analysis for 1998 - Station RICH0134

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	12	17.5	16.45	27.4	3.9	65.303	8.081	4.89	8.9	24.575	27.1
00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	12	155.5	153.333	213.	96.	2056.606	45.35	96.6	100.5	199.5	211.5
00310 BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	12	2.5	2.417	5.	1.	1.72	1.311	1.	1.	3.	4.7
00340 COD, 25N K2CR2O7 MG/L	08/08/79-12/14/98	12	22.5	23.917	34.	16.	30.083	5.485	16.6	21.25	26.	34.
00400p PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.45	6.382	6.71	5.62	0.089	0.299	5.77	6.27	6.56	6.707
00400p CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	12	6.446	6.258	6.71	5.62	0.106	0.326	5.77	6.27	6.56	6.707
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	12	0.358	0.553	2.399	0.195	0.365	0.604	0.196	0.275	0.537	1.907
00500 RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	12	124.	122.	170.	88.	694.364	26.351	88.6	97.75	138.75	166.1
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	11	41.	39.727	53.	17.	85.818	9.264	20.4	37.	46.	51.8
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	11	86.	85.364	117.	49.	475.255	21.8	51.	66.	106.	115.8
00530p RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	7.	8.667	16.	4.	13.515	3.676	4.3	6.25	11.5	15.4
00535p RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	12	3.	3.542	8.	1.5	6.703	2.589	1.5	1.5	6.	8.
00540p RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	12	4.	4.75	8.	3.	3.114	1.765	3.	3.25	6.75	7.7
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	12##	0.02	0.037	0.09	0.02	0.001	0.025	0.02	0.02	0.048	0.087
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12##	0.005	0.006	0.01	0.005	0.	0.002	0.005	0.005	0.005	0.01
00620p NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	12	0.095	0.113	0.31	0.02	0.009	0.093	0.02	0.02	0.188	0.283
00625p NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	12	0.65	0.692	1.1	0.5	0.037	0.193	0.5	0.525	0.775	1.07
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	12	0.1	0.092	0.16	0.04	0.001	0.035	0.043	0.063	0.115	0.151
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	12	0.075	0.074	0.12	0.04	0.001	0.027	0.04	0.05	0.098	0.117

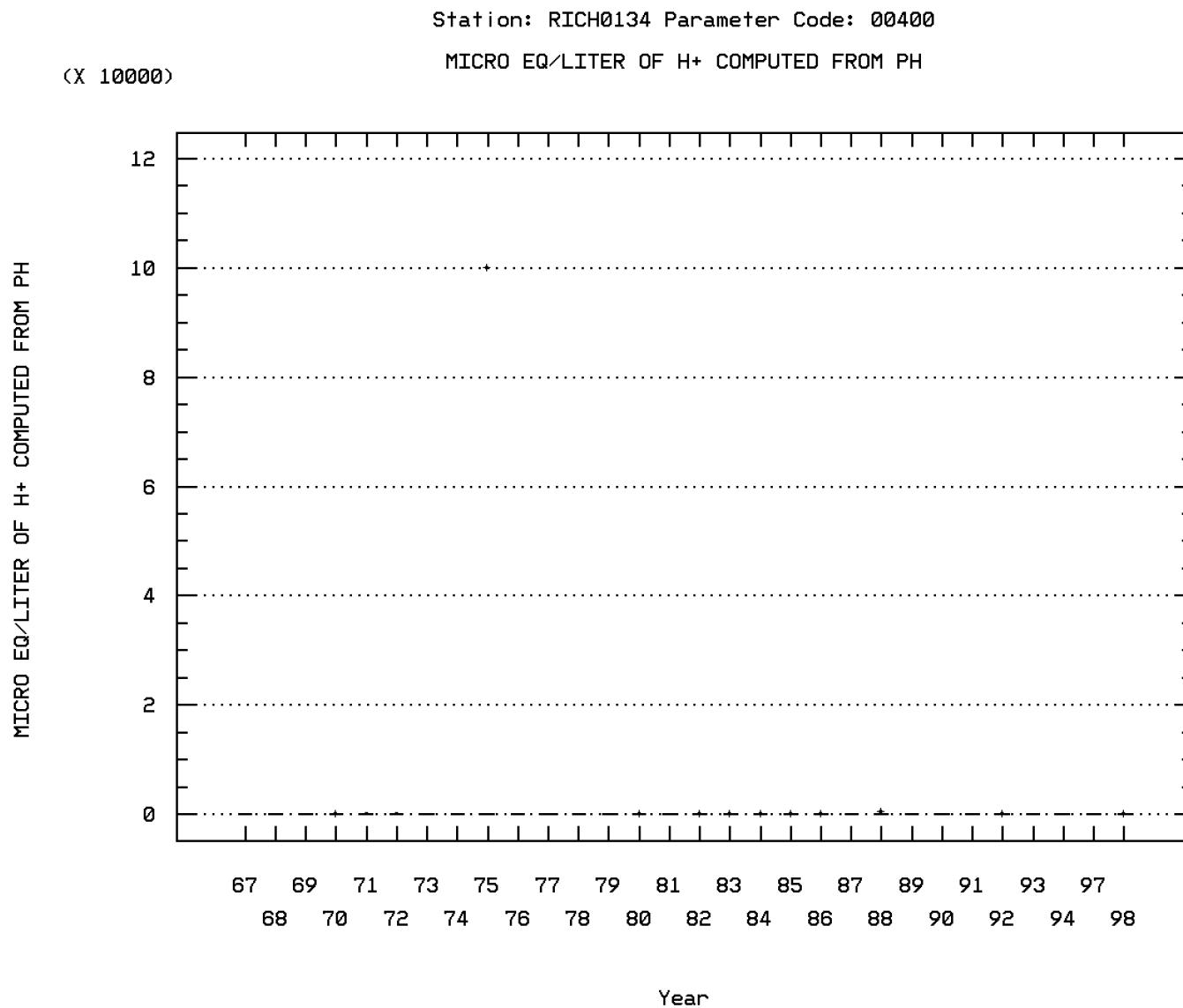
\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0134 Parameter Code: 00300

OXYGEN, DISSOLVED



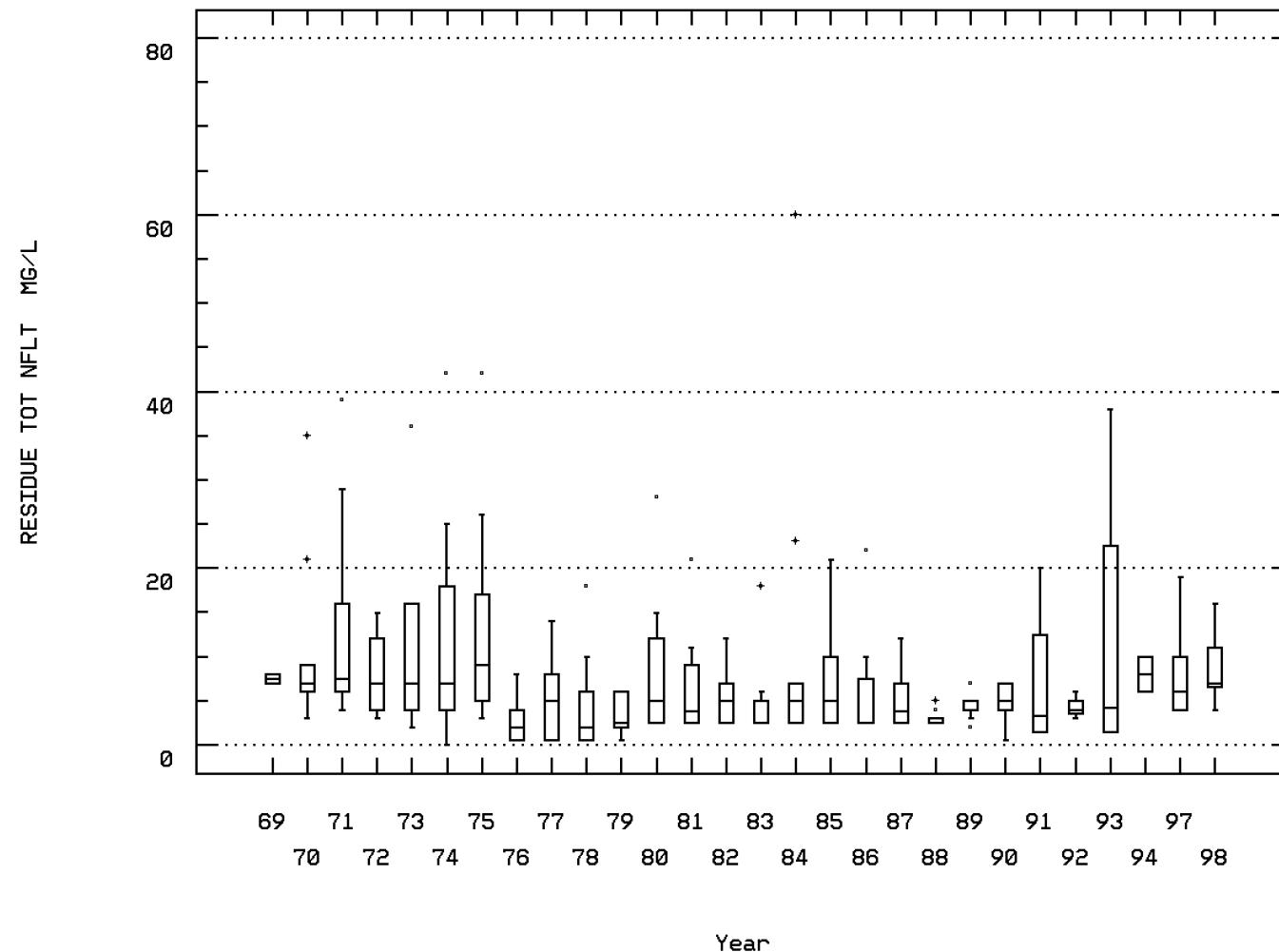
RT. 360 BRIDGE



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00530

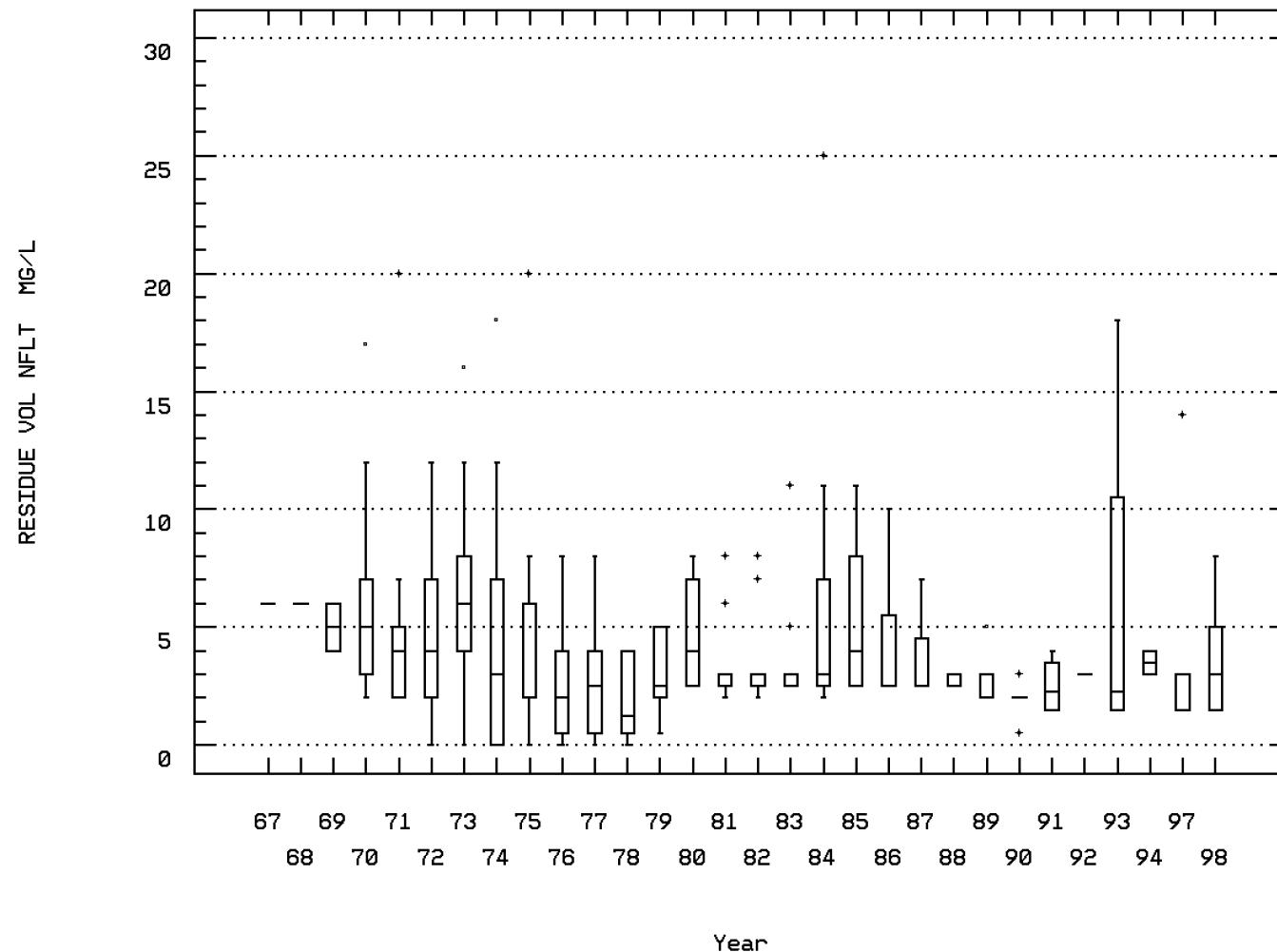
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00535

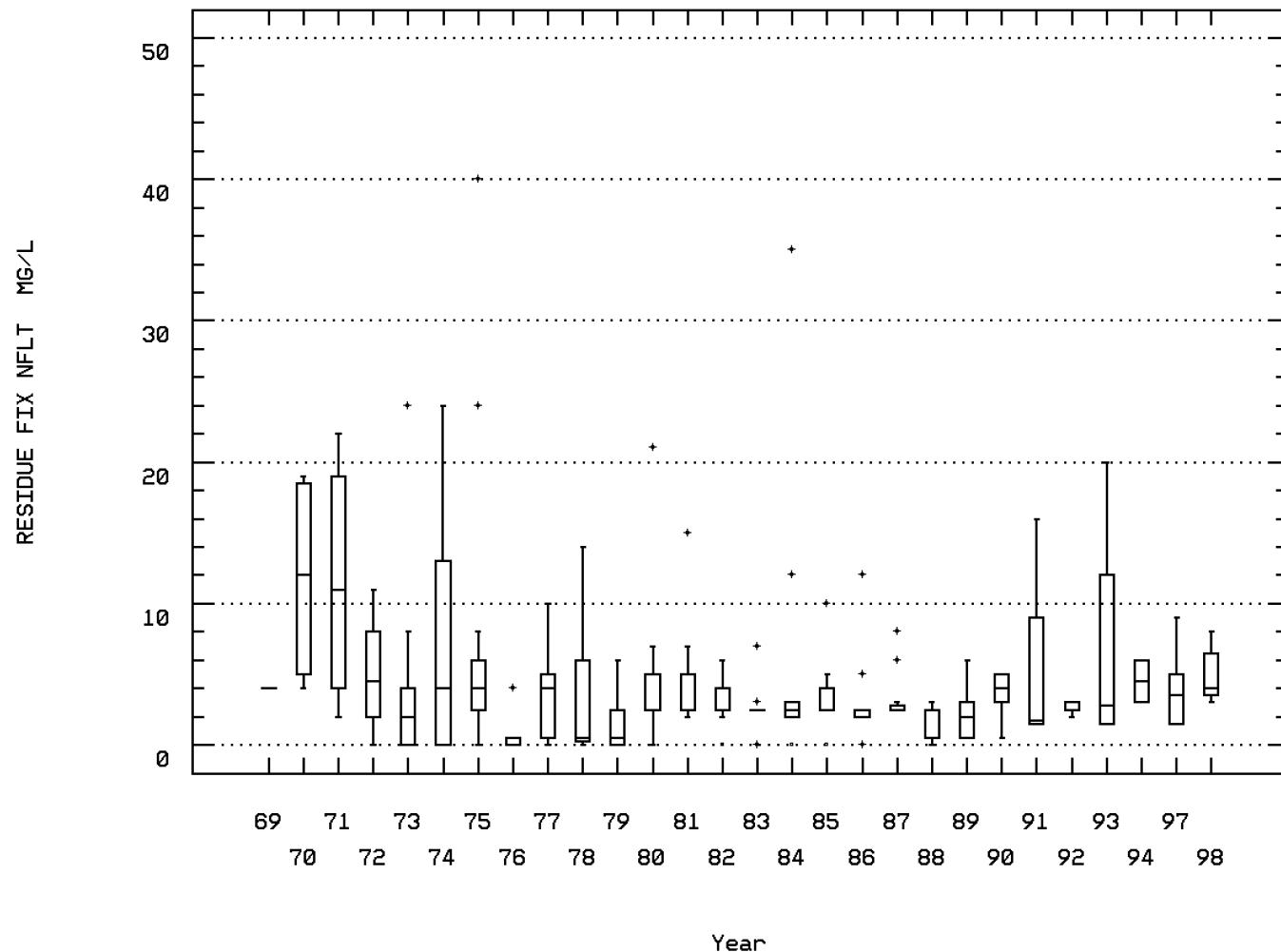
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00540

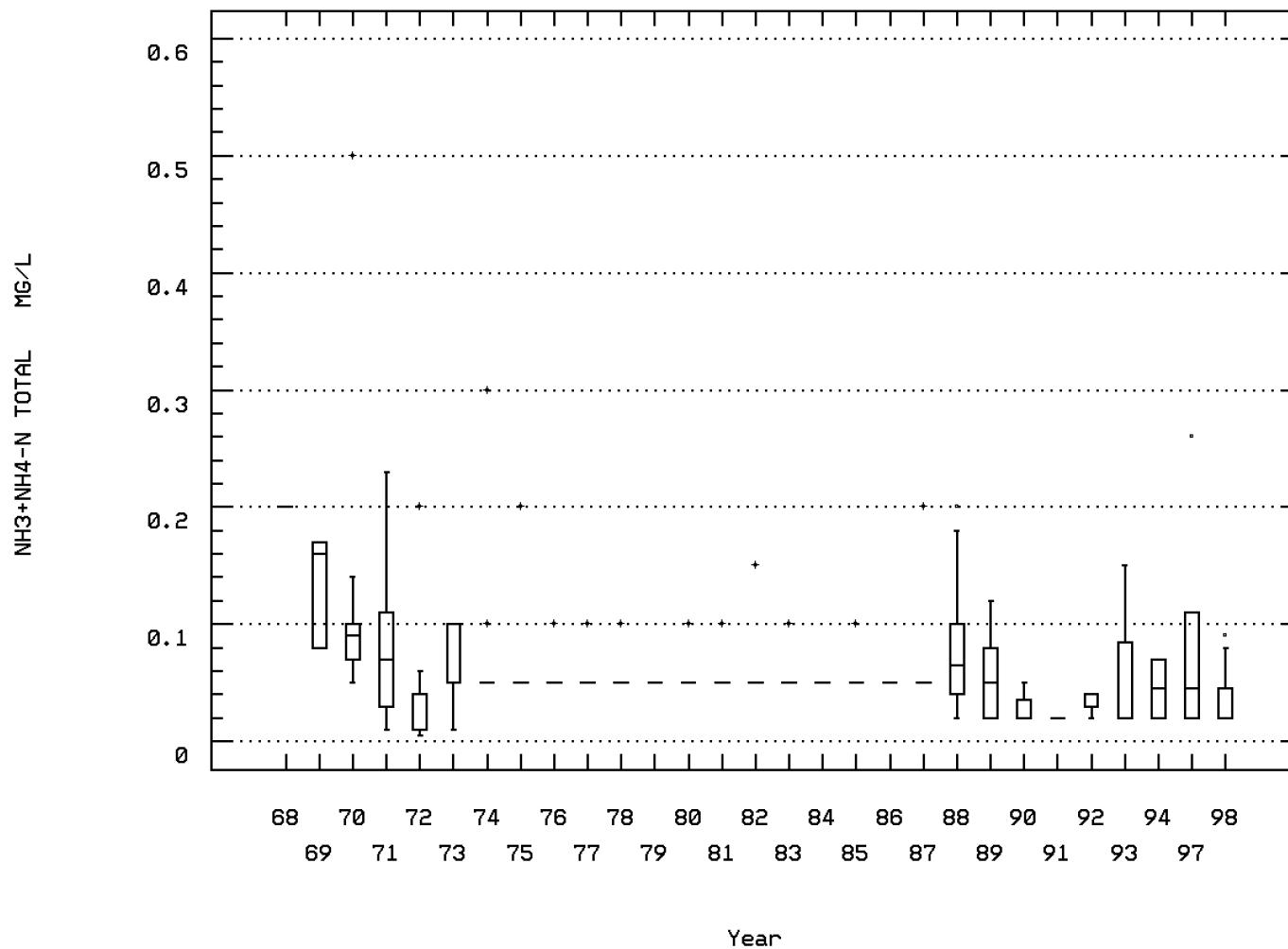
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00610

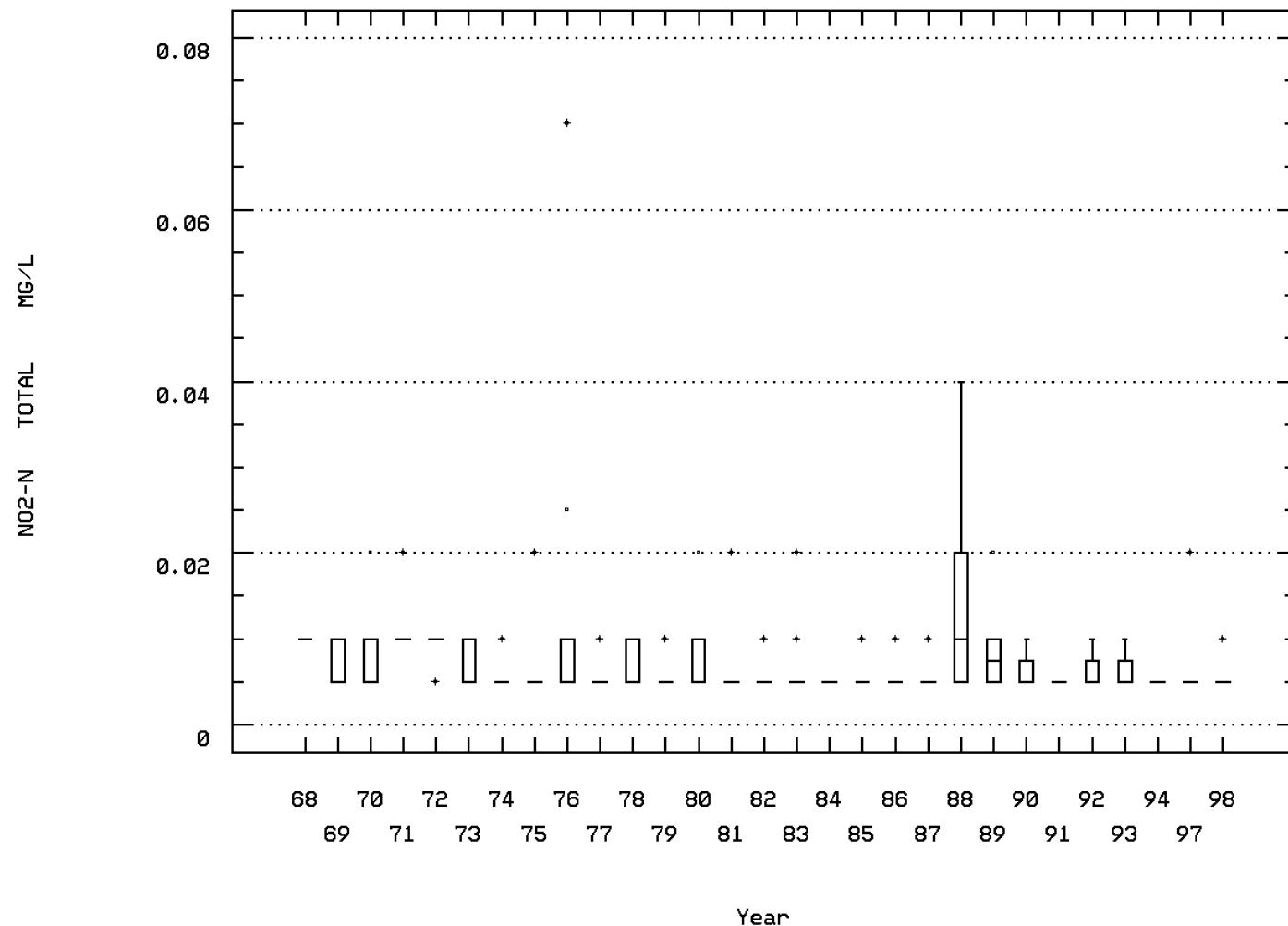
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00615

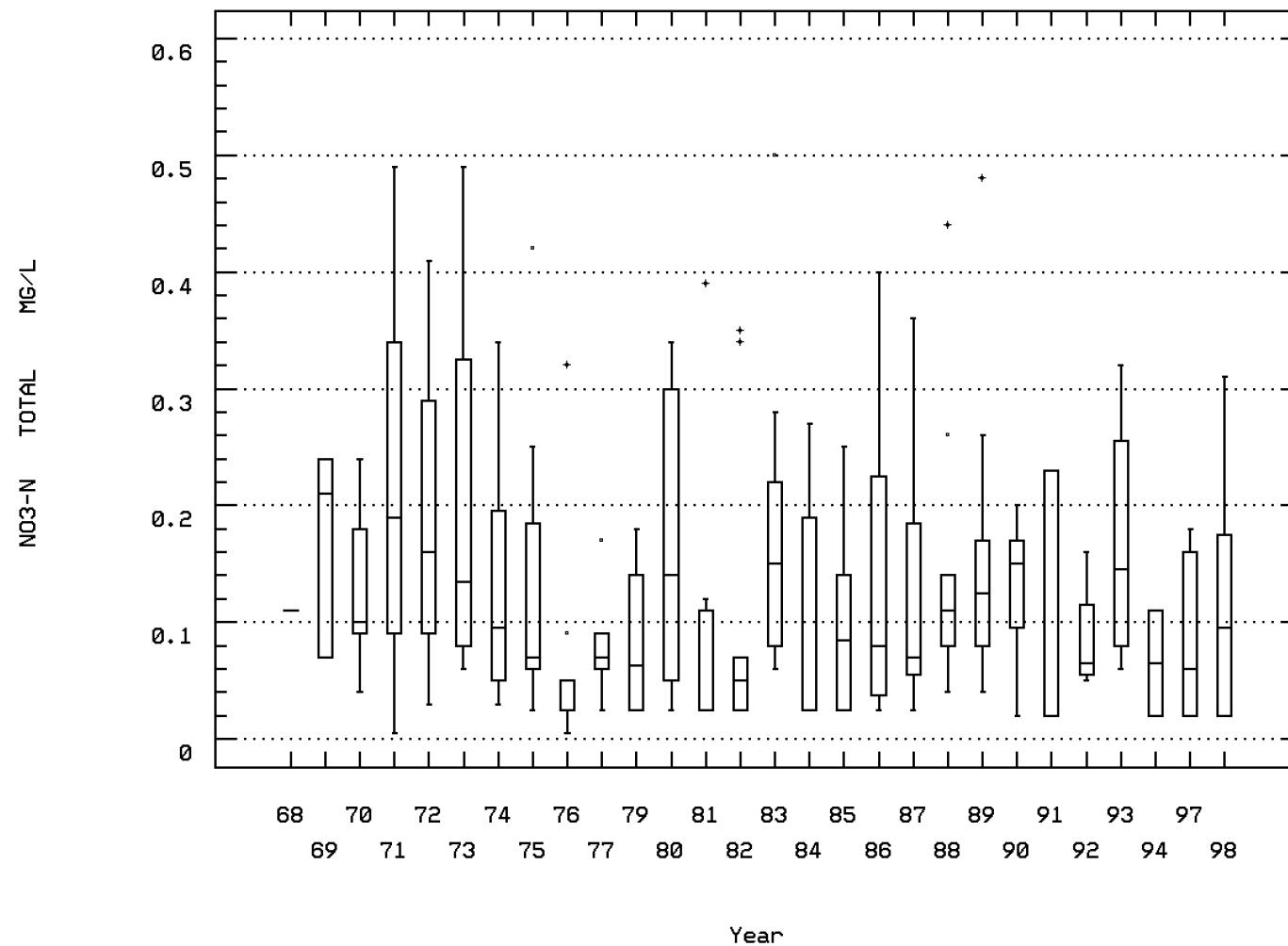
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00620

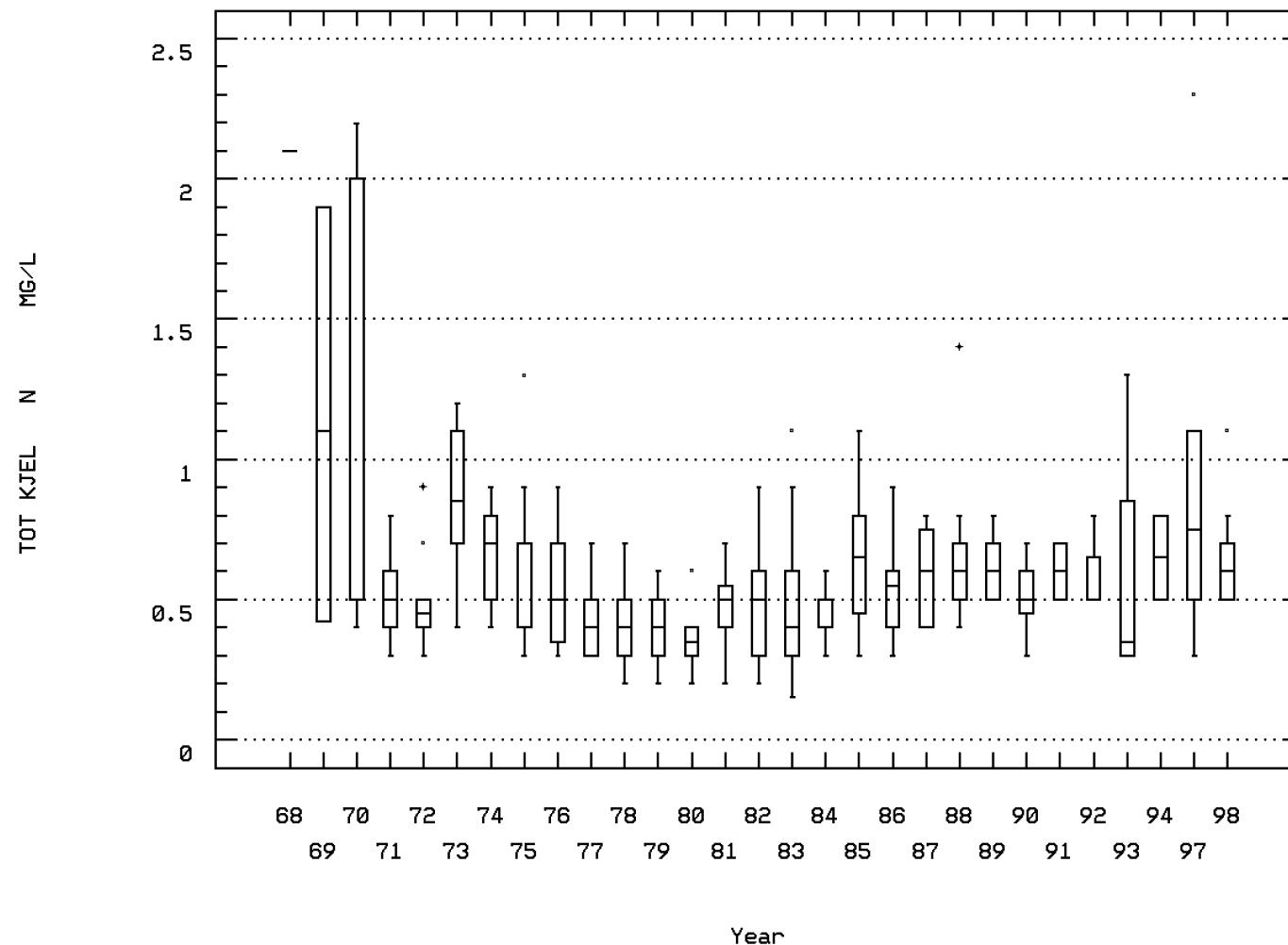
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00625

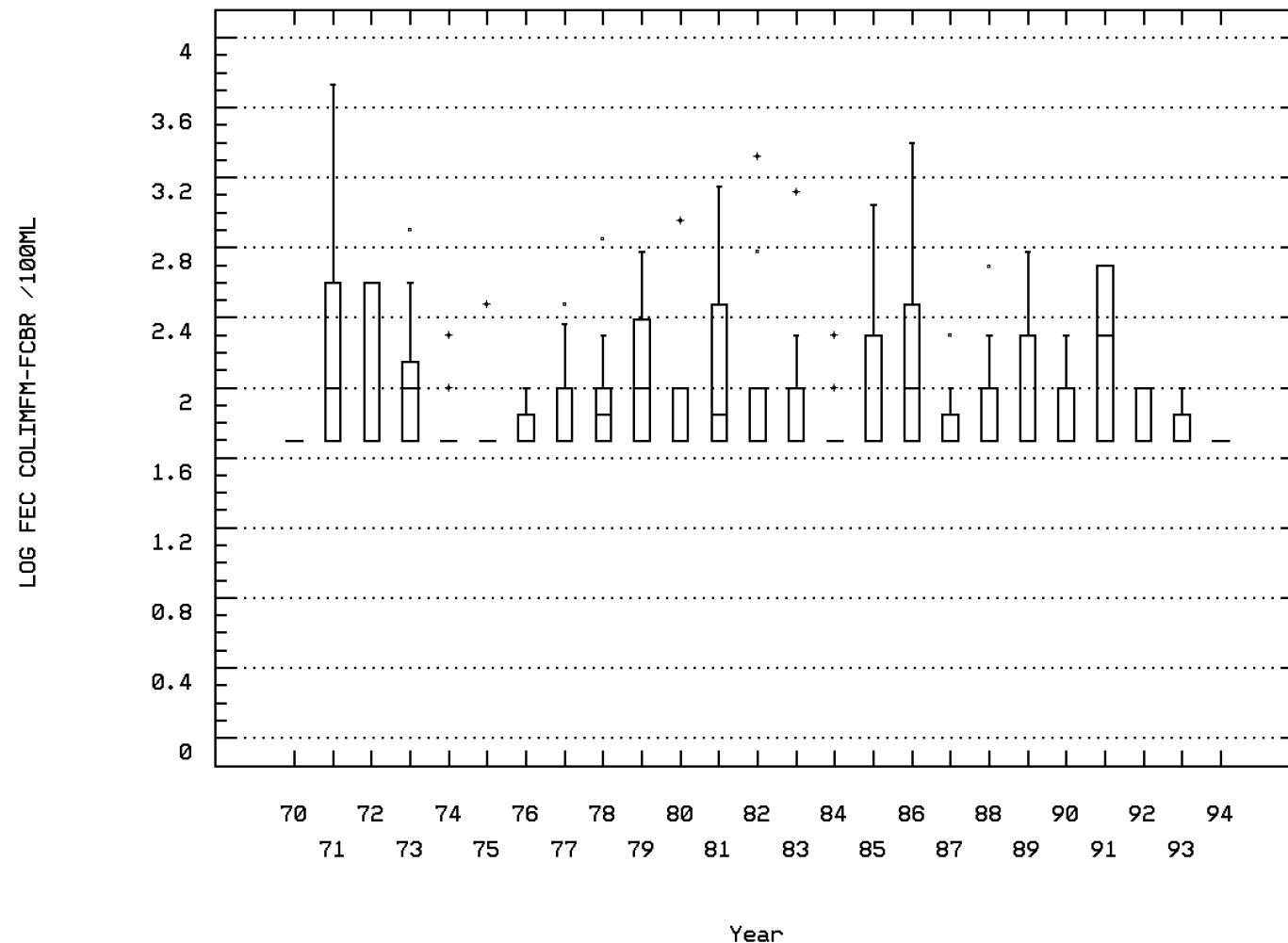
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 31616

LOG FECAL COLIFORM, MEMBR FILTER, M-FC BR



RT. 360 BRIDGE

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	82	23.3	22.866	29.5	12.6	17.797	4.219	16.15	20.875	26.025	27.94
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	35	195.	194.143	289.	117.	1818.95	42.649	141.	164.	224.	260.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/10/89-12/14/98	14	180.5	179.5	241.	132.	1331.654	36.492	134.	149.	205.5	235.5
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/14/98	11	1.7	1.973	4.4	0.4	1.78	1.334	0.4	1.	3.3	4.26
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	69	3.6	3.626	9.	0.4	3.263	1.806	1.3	2.25	4.6	6
00310p	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	55	2.	2.355	16.	1.	4.7	2.168	1.	1.	3.	4.
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/14/98	43	25.	25.814	42.	5.	53.441	7.31	16.8	22.	32.	34.
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	81	6.5	6.509	8.09	3.3	0.316	0.562	6.	6.33	6.78	7.
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	81	6.5	5.177	8.09	3.3	2.112	1.453	6.	6.33	6.78	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	81	0.316	6.654	501.187	0.008	3095.846	55.64	0.1	0.166	0.469	1.
00403p	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	20	6.8	6.85	7.4	6.5	0.051	0.226	6.6	6.7	7.	7.19
00403p	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	20	6.8	6.801	7.4	6.5	0.054	0.232	6.6	6.7	7.	7.19
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	20	0.158	0.158	0.316	0.04	0.005	0.071	0.065	0.1	0.2	0.251
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	19	43.	43.474	71.	16.	209.819	14.485	25.	36.	53.	69
00500p	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	47	139.	142.66	200.	94.	778.664	27.905	105.8	122.	162.	185.6
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	49	46.	66.592	800.	11.	12192.33	110.419	27.	34.	66.5	87.
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	46	95.	94.587	143.	34.	462.514	21.506	71.7	84.75	106.25	117.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	73	6.	9.808	60.	0.5	106.324	10.311	2.	4.	12.	21.6
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	76	3.	5.132	25.	0.	22.169	4.708	1.	2.	7.	10.3
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	73	3.	5.075	35.	0.	40.928	6.398	0.	1.	6.	16
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	73 ##	0.05	0.074	0.3	0.005	0.003	0.056	0.03	0.05	0.09	0.162
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	73 ##	0.005	0.007	0.025	0.005	0.	0.005	0.005	0.005	0.01	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	68	0.05	0.069	0.25	0.005	0.003	0.055	0.025	0.025	0.09	0.161
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	73	0.6	0.749	2.3	0.3	0.168	0.41	0.4	0.5	0.9	1.1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	42	0.1	0.133	0.41	0.05	0.008	0.088	0.05	0.098	0.2	0.27
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	32	0.07	0.086	0.32	0.03	0.003	0.058	0.043	0.053	0.09	0.141
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	34	10.95	11.615	18.	6.	11.699	3.42	8.05	9.	14.	18.
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	09/20/67-12/14/98	17	54.	53.706	93.	22.	323.471	17.985	28.4	39.	60.5	84.2
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	16	18.5	20.063	32.	13.	24.063	4.905	15.1	16.25	23.75	27.8
00945	SULFATE, TOTAL (MG/L AS SO4)	11/21/88-12/14/98	15	9.	10.533	19.	4.	23.552	4.853	4.6	7.	17.	18.4
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-06/01/93	5 ##	5.	6.	10.	5.	5.	2.236	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-06/01/93	5 ##	5.	10.	30.	5.	125.	11.18	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-06/01/93	5 ##	5.	7.	10.	5.	7.5	2.739	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-06/01/93	5	20.	20.8	30.	16.	29.2	5.404	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	63 ##	50.	191.905	2500.	50.	117418.894	342.664	50.	50.	200.	454.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	63 ##	1.699	2.022	3.398	1.699	0.171	0.413	1.699	1.699	2.301	2.655
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	105.103								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	28	0.1	0.113	0.3	0.05	0.005	0.07	0.05	0.05	0.2	0.2
70507p	PHOSPHORUS, IN TOTAL, ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	38	0.07	0.081	0.2	0.02	0.001	0.037	0.04	0.05	0.1	0.13
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-06/01/93	6 ##	0.25	0.217	0.25	0.15	0.003	0.052	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	108	7.2	7.933	18.3	-3.5	18.381	4.287	3.	5.5	11.225	14.04
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	53	179.	216.698	1124.	67.	33023.984	181.725	103.8	139.	217.5	292.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/10/89-12/14/98	19	158.	157.526	261.	76.	1625.708	40.32	105.	133.	178.	211.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/14/98	18	8.75	8.483	12.6	2.1	8.254	2.873	3.63	6.9	10.325	12.42
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	93	9.6	9.081	15.8	3.	6.165	2.483	5.88	7.1	10.8	12
00310p	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	66	1.9	1.865	20.	0.5	5.622	2.371	1.	1.	2.	2.51
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/14/98	66	19.	20.348	39.	12.	31.584	5.62	14.7	16.	23.25	28.3
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	109	6.5	6.59	8.41	5.5	0.242	0.492	6.	6.365	6.8	7.04
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	109	6.5	6.368	8.41	5.5	0.292	0.541	6.	6.365	6.8	7.04
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-12/14/98	109	0.316	0.429	3.162	0.004	0.25	0.5	0.091	0.158	0.432	1.
00403p	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	27	6.5	6.519	6.9	6.1	0.044	0.209	6.2	6.4	6.6	6.9

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00403p	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	27	6.5	6.471	6.9	6.1	0.046	0.215	6.2	6.4	6.6	6.9
00403p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-12/14/98	27	0.316	0.338	0.794	0.126	0.026	0.163	0.126	0.251	0.398	0.631
00410p	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	09/20/67-12/14/98	27	15.	17.63	46.	7.	73.781	8.59	9.8	12.	21.	27.4
00500p	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	65	111.	123.954	590.	57.	4480.232	66.935	87.2	97.5	126.5	167.
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	65	39.	40.631	127.	10.	370.612	19.251	20.	28.	47.	62.
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	64	72.	82.984	570.	11.	4795.	69.246	40.5	55.5	86.75	119.5
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	105	4.	5.381	28.	0.	25.493	5.049	1.	2.5	7.	12.
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	106	2.5	2.915	16.	0.	5.883	2.426	0.5	1.5	3.	5.3
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	104	2.5	3.322	24.	0.	14.81	3.848	0.5	1.	4.	7.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	104 ##	0.05	0.056	0.5	0.005	0.003	0.054	0.02	0.04	0.05	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	103 ##	0.005	0.007	0.02	0.005	0.	0.003	0.005	0.005	0.01	0.01
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	95	0.18	0.194	0.5	0.02	0.018	0.136	0.028	0.07	0.29	0.394
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	102	0.4	0.468	2.	0.15	0.05	0.224	0.3	0.3	0.5	0.7
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	65	0.05	0.084	0.6	0.03	0.006	0.078	0.04	0.05	0.1	0.152
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	50	0.03	0.1	3.	0.01	0.177	0.421	0.011	0.02	0.043	0.06
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	53	8.	8.798	21.	5.2	9.418	3.069	6.	7.	10.	12.2
00900p	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	09/20/67-12/14/98	22	39.	40.773	72.	20.	170.47	13.056	26.6	30.	50.25	60.4
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	24	21.	37.125	317.	7.	3726.201	61.043	13.5	16.25	33.5	57.5
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	11/21/88-12/14/98	23	16.	21.478	105.	8.	407.352	20.183	8.4	14.	18.	39.8
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-06/01/93	13 ##	5.	5.423	10.	0.5	5.66	2.379	2.3	5.	5.	10.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-06/01/93	13 ##	5.	6.154	10.	5.	4.808	2.193	5.	5.	7.5	10.
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-06/01/93	13 ##	5.	6.462	20.	1.	23.603	4.858	1.4	5.	7.5	16.4
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-06/01/93	13	17.	16.769	30.	5.	55.359	7.44	7.	10.	20.	30.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	87 ##	50.	162.989	2100.	50.	122374.686	349.821	50.	50.	100.	400.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	12/15/70-06/08/94	87 ##	1.699	1.897	3.322	1.699	0.155	0.394	1.699	1.699	2.	2.602
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			78.966								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	38 ##	0.05	0.093	0.6	0.05	0.009	0.095	0.05	0.05	0.1	0.2
70507p	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	54	0.05	0.046	0.12	0.005	0.001	0.023	0.02	0.03	0.06	0.075
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-06/01/93	13 ##	0.15	0.196	0.25	0.15	0.003	0.052	0.15	0.15	0.25	0.25

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### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-12/14/98	73	19.	18.441	28.	7.	27.17	5.212	10.76	13.8	22.7	25.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/14/98	32	147.5	153.438	275.	69.	2978.706	54.578	82.6	110.5	183.75	247.7
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/10/89-12/14/98	11	137.	136.909	182.	102.	696.291	26.387	102.6	106.	162.	178.2
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/14/98	6	3.45	4.283	9.2	1.	7.594	2.756	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/18/68-06/10/91	69	6.	5.997	12.2	0.8	7.19	2.681	2.2	3.85	8.	9.8
00310p	BOD, 5 DAY, 20 DEG C MG/L	09/20/67-12/14/98	47	2.	2.074	4.	1.	0.796	0.892	1.	1.	2.8	3.2
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/14/98	38	27.	28.053	40.	17.	39.835	6.311	20.	23.	32.	39.
00400p	PH (STANDARD UNITS)	09/20/67-12/14/98	74	6.6	6.57	8.	1.	0.572	0.756	6.21	6.48	6.8	7.05
00400p	CONVERTED PH (STANDARD UNITS)	09/20/67-12/14/98	74	6.6	2.869	8.	1.	14.457	3.802	6.21	6.48	6.8	7.05
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-12/14/98	74	0.251	1351.652	100000.	0.01135134312.684	11624.728	0.09	0.158	0.332	0.617	
00403p	PH, LAB, STANDARD UNITS SU	09/20/67-12/14/98	20	6.7	6.68	7.4	5.9	0.13	0.361	6.03	6.6	6.775	7.36
00403p	CONVERTED PH, LAB, STANDARD UNITS	09/20/67-12/14/98	20	6.7	6.531	7.4	5.9	0.154	0.392	6.03	6.6	6.775	7.36
00403p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-12/14/98	20	0.2	0.295	1.259	0.04	0.093	0.305	0.046	0.169	0.251	0.95
00410p	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	09/20/67-12/14/98	19	26.	26.526	51.	6.	175.263	13.239	7.	16.	38.	45.
00500p	RESIDUE, TOTAL (MG/L)	10/07/68-12/14/98	47	105.	107.298	185.	64.	729.735	27.014	74.6	87.	125.	142.6
00505p	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-12/14/98	46	43.5	44.	74.	7.	201.2	14.184	27.	34.	52.75	64.3
00510p	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-12/14/98	46	64.5	66.543	163.	13.	731.231	27.041	34.4	53.25	76.5	101.9
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-12/14/98	73	6.	7.644	42.	0.5	66.906	8.18	2.	2.5	8.	16.4
00535p	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-12/14/98	73	2.5	3.973	20.	0.	13.381	3.658	1.	2.	6.	7.
00540p	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-12/14/98	72	2.5	4.146	40.	0.	38.468	6.202	0.	1.	5.	8.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-12/14/98	72 ##	0.05	0.063	0.22	0.01	0.002	0.041	0.02	0.05	0.058	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	71 ##	0.005	0.008	0.07	0.005	0.	0.009	0.005	0.005	0.01	0.01

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

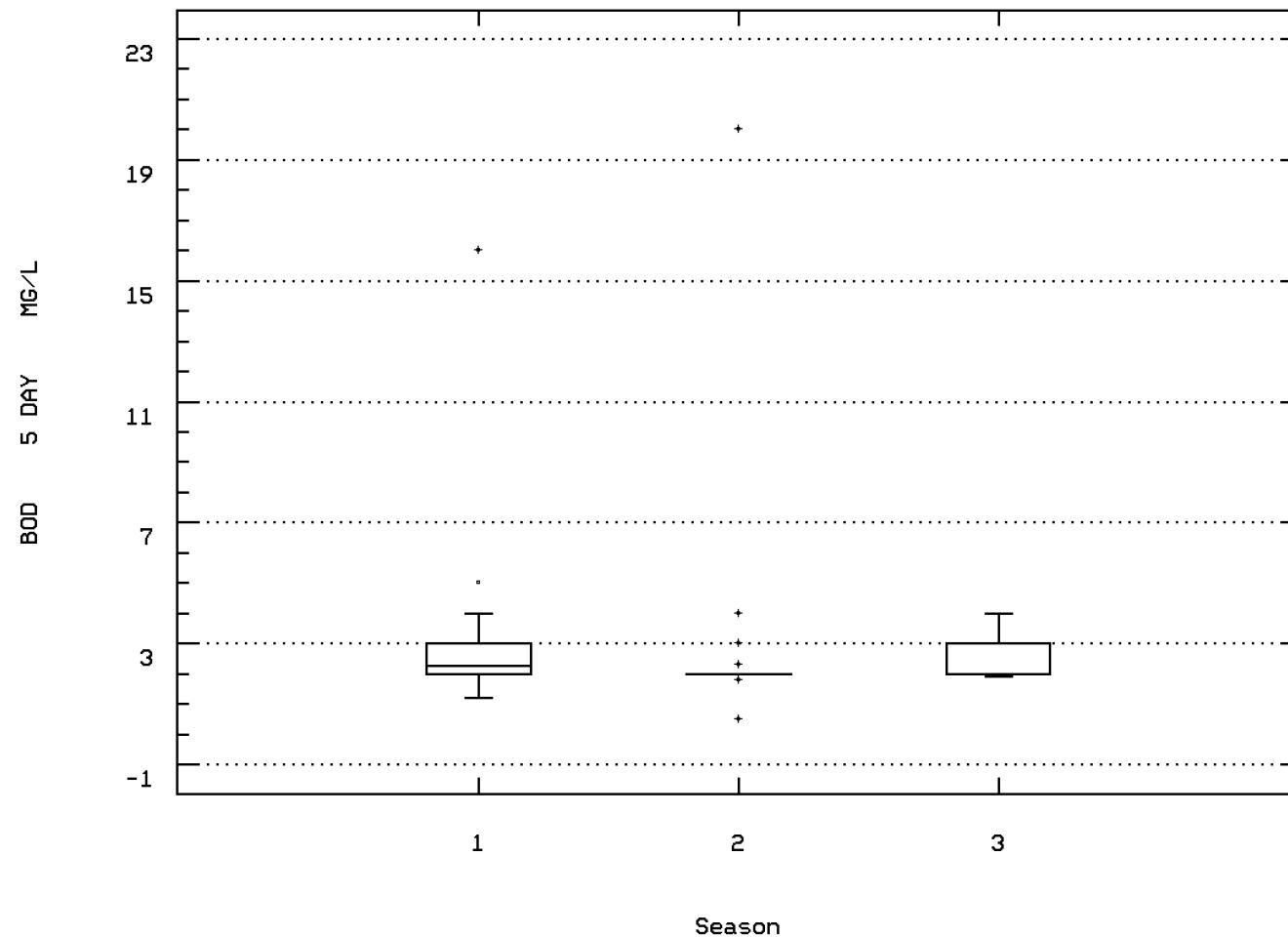
### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0134

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00620p	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-12/14/98	65	0.09	0.115	0.42	0.005	0.008	0.087	0.025	0.055	0.15	0.222
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-12/14/98	68	0.6	0.663	2.199	0.2	0.087	0.294	0.4	0.5	0.8	1.
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/14/98	36	0.1	0.095	0.2	0.05	0.002	0.047	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-03/13/91	32	0.065	0.063	0.12	0.02	0.001	0.028	0.03	0.04	0.09	0.1
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-06/08/94	35	12.	12.146	19.	4.	10.65	3.263	8.42	10.	14.	16.4
00900p	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	09/20/67-12/14/98	11	34.	34.727	56.	20.	144.018	12.001	20.4	23.	44.	54.8
00940	CHLORIDE, TOTAL IN WATER MG/L	07/30/75-12/14/98	13	17.	15.462	24.	9.	17.103	4.136	9.4	11.5	17.	22.
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	11/21/88-12/14/98	13	7.	6.923	10.	2.	4.244	2.06	3.6	6.	8.	10.
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-06/01/93	14 ##	5.	7.536	20.	0.5	21.556	4.643	2.75	5.	10.	15.
01042	COPPER, TOTAL (UG/L AS CU)	03/24/70-06/01/93	13 ##	5.	6.923	20.	5.	18.91	4.349	5.	5.	7.5	16.
01051	LEAD, TOTAL (UG/L AS PB)	06/29/70-06/01/93	10 ##	3.5	3.6	10.	0.5	8.767	2.961	0.55	1.	5.	9.5
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/70-06/01/93	14	13.5	26.571	90.	5.	744.571	27.287	5.	8.75	32.5	85.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	61 ##	50.	236.066	5400.	50.	520177.596	721.233	50.	50.	100.	380.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	12/15/70-06/08/94	61 ##	1.699	1.959	3.732	1.699	0.188	0.434	1.699	1.699	2.	2.577
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	90.953								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	32	0.1	0.097	0.2	0.05	0.003	0.052	0.05	0.05	0.1	0.2
70507p	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-12/14/98	38	0.065	0.074	0.16	0.02	0.001	0.029	0.04	0.05	0.1	0.101
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-06/01/93	10 ##	0.25	0.208	0.25	0.025	0.006	0.076	0.038	0.15	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

Station: RICH0134 Parameter Code: 00310

BOD, 5 DAY, 20 DEG C



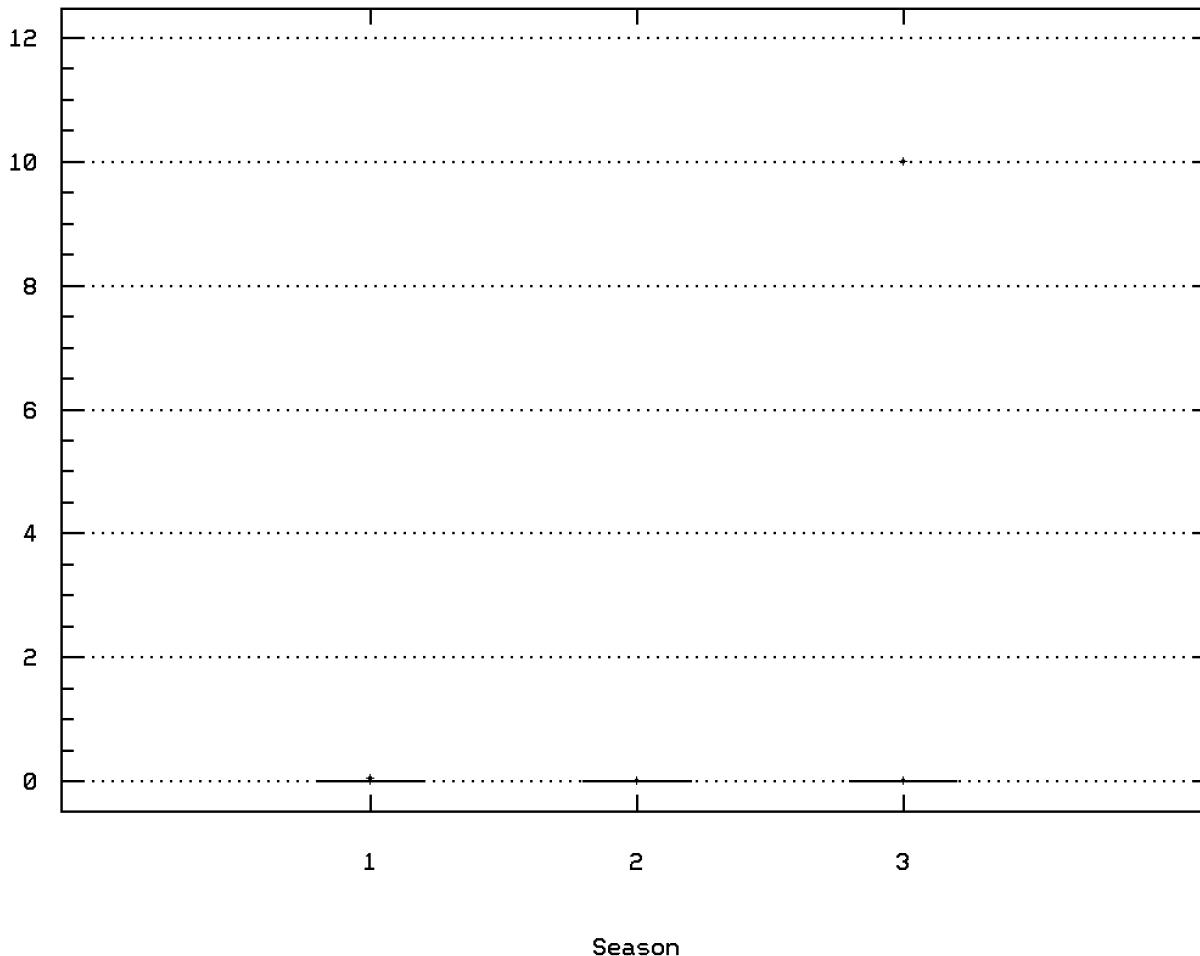
RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00400

(X 10000)

MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH

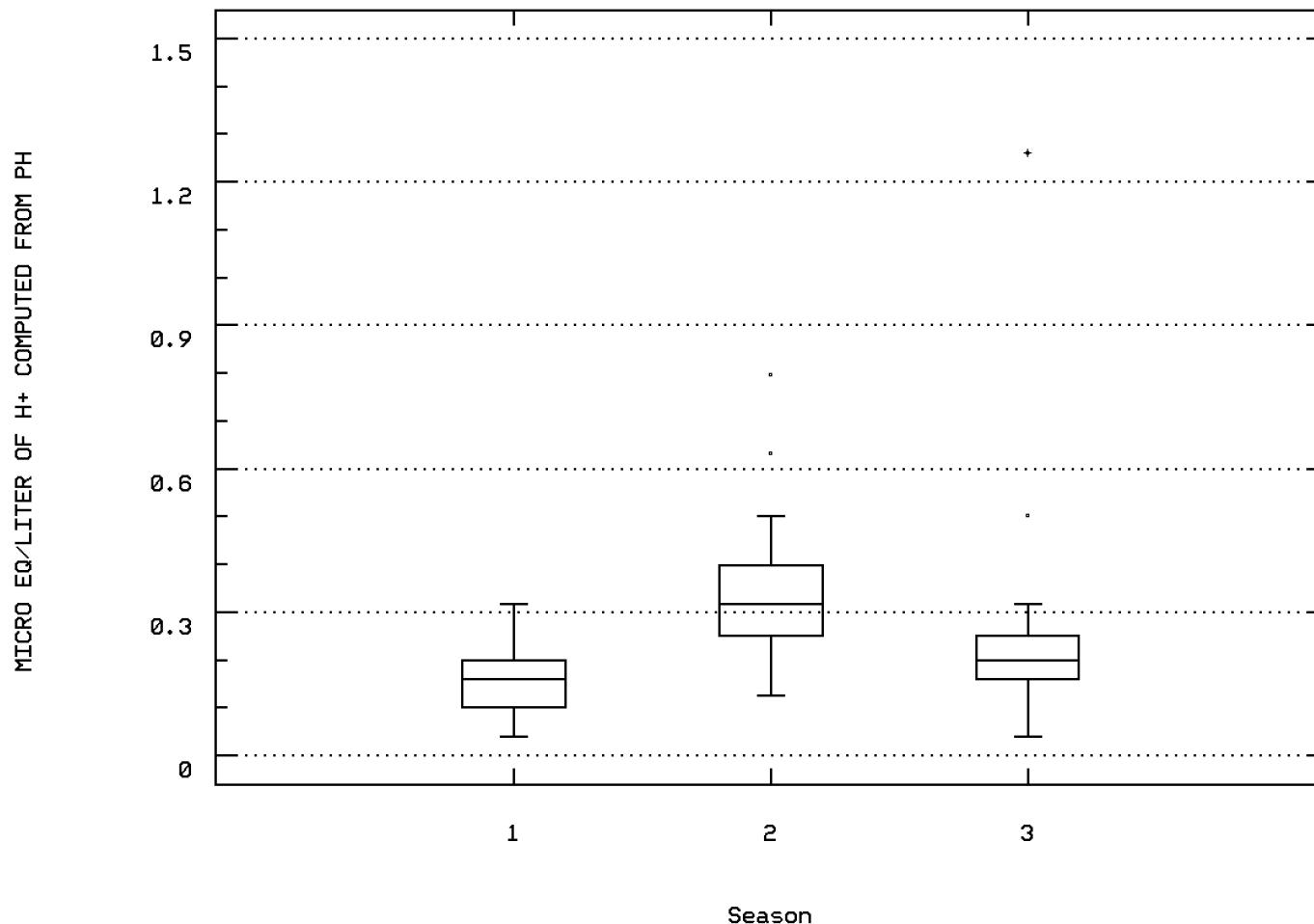
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00403

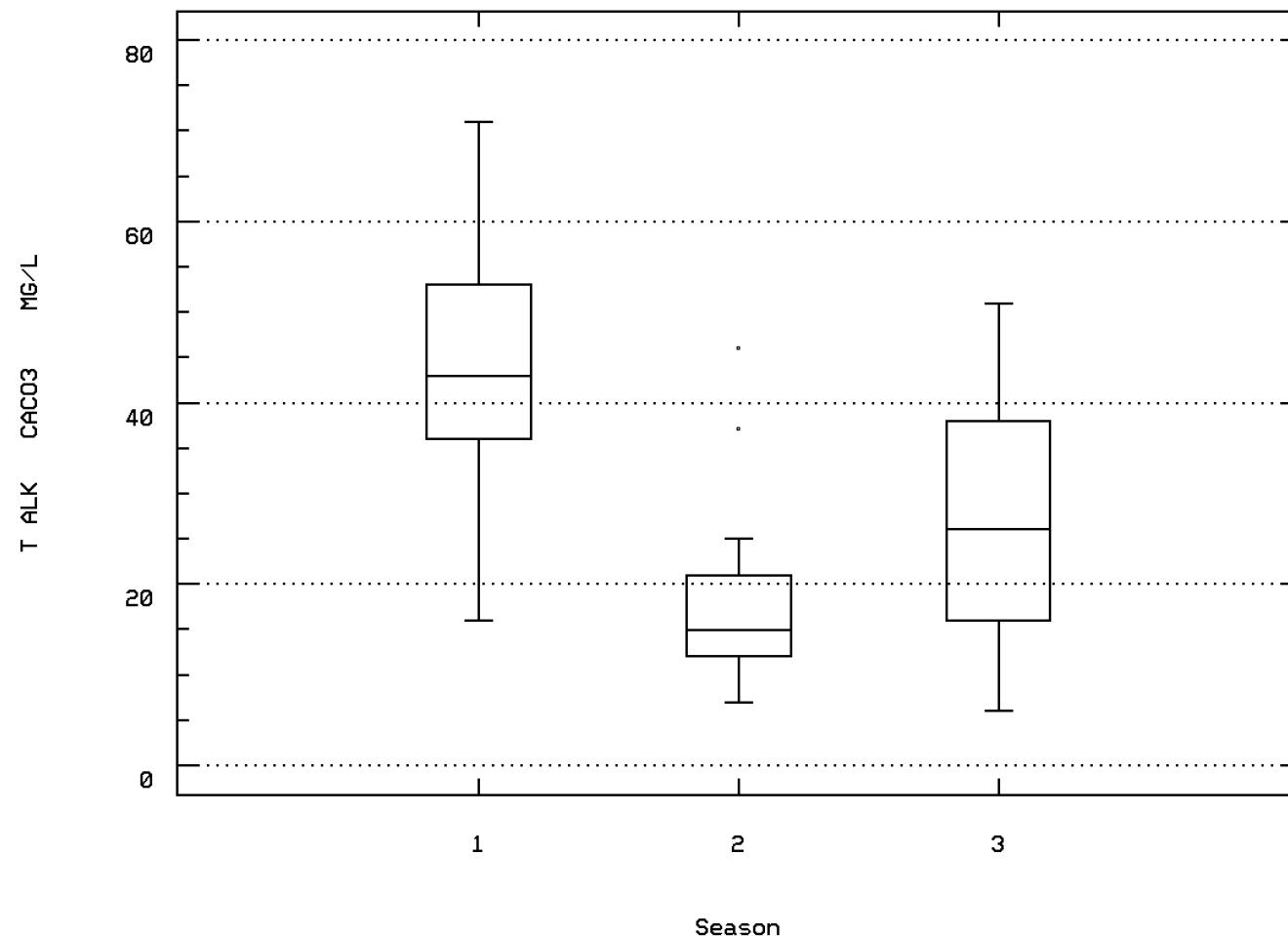
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00410

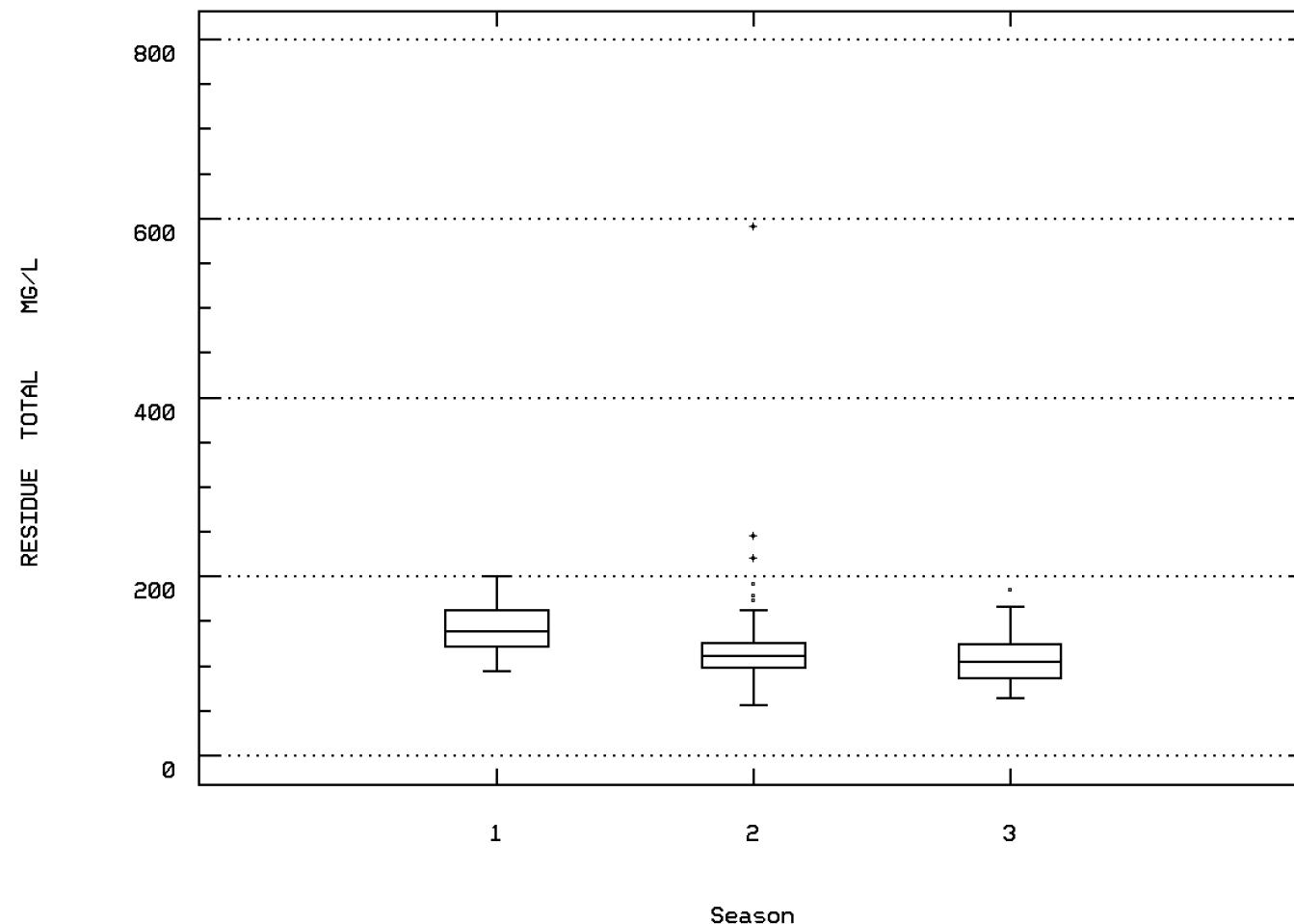
ALKALINITY, TOTAL (MG/L AS CACO<sub>3</sub>)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00500

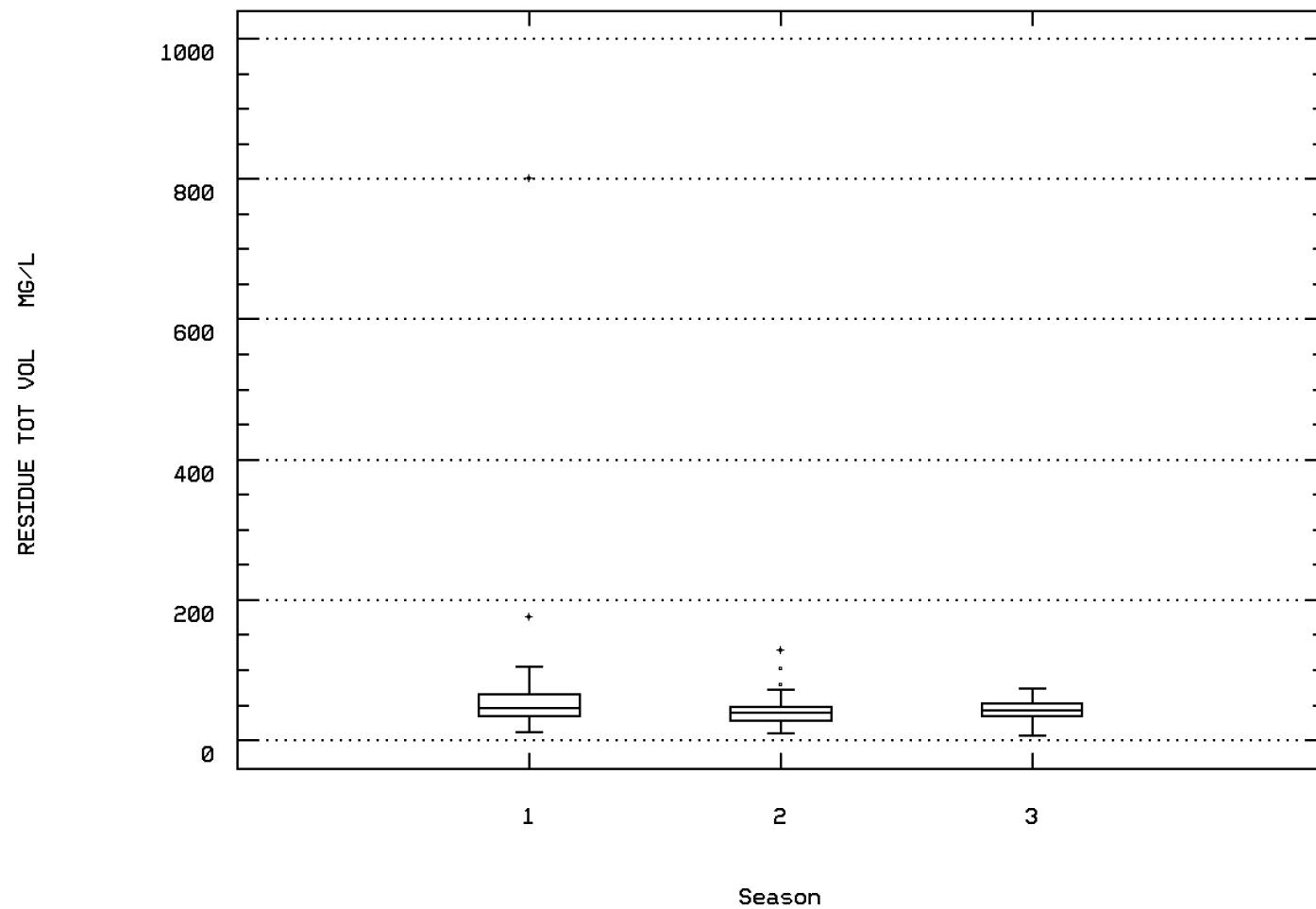
RESIDUE, TOTAL (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00505

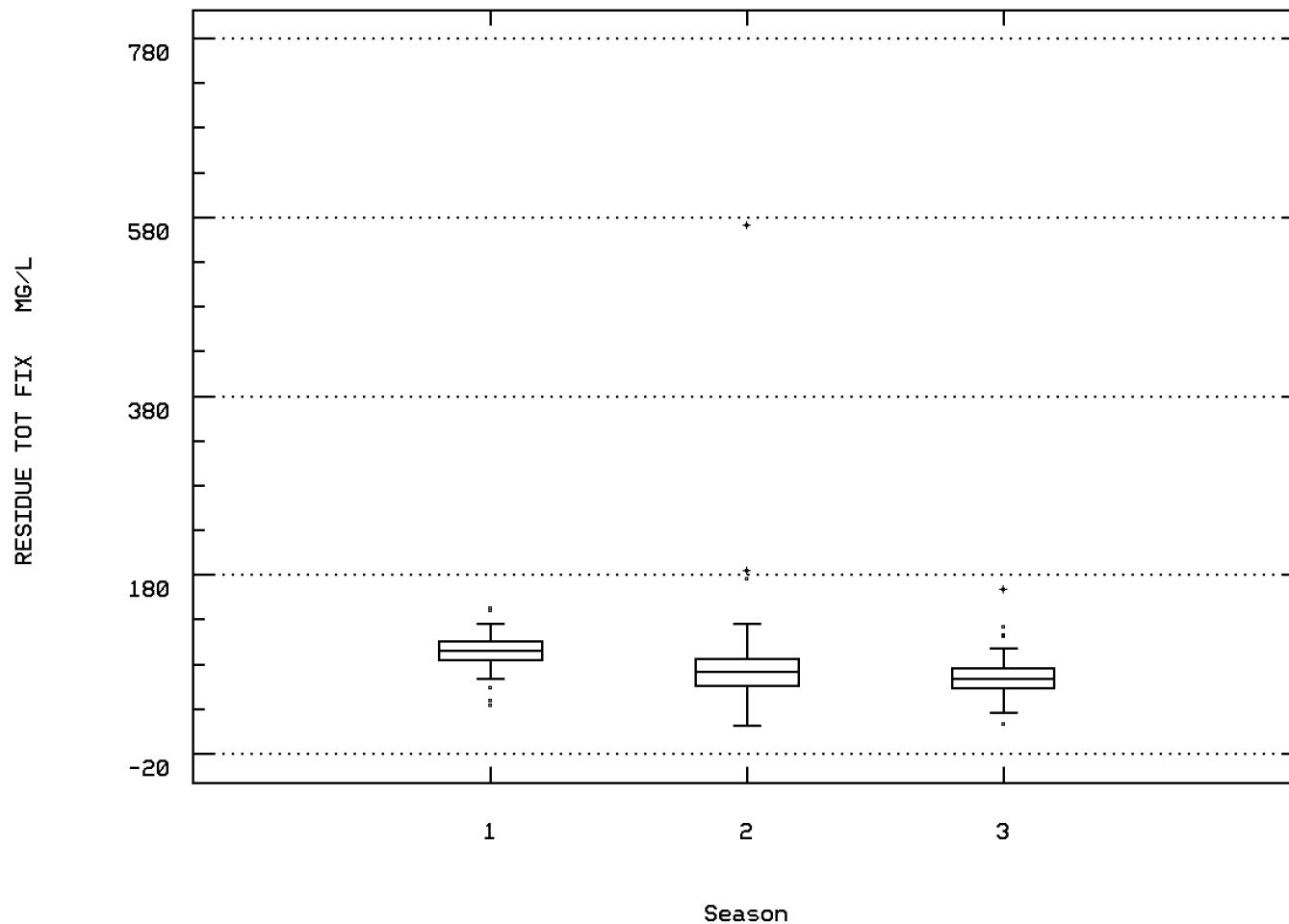
RESIDUE, TOTAL VOLATILE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00510

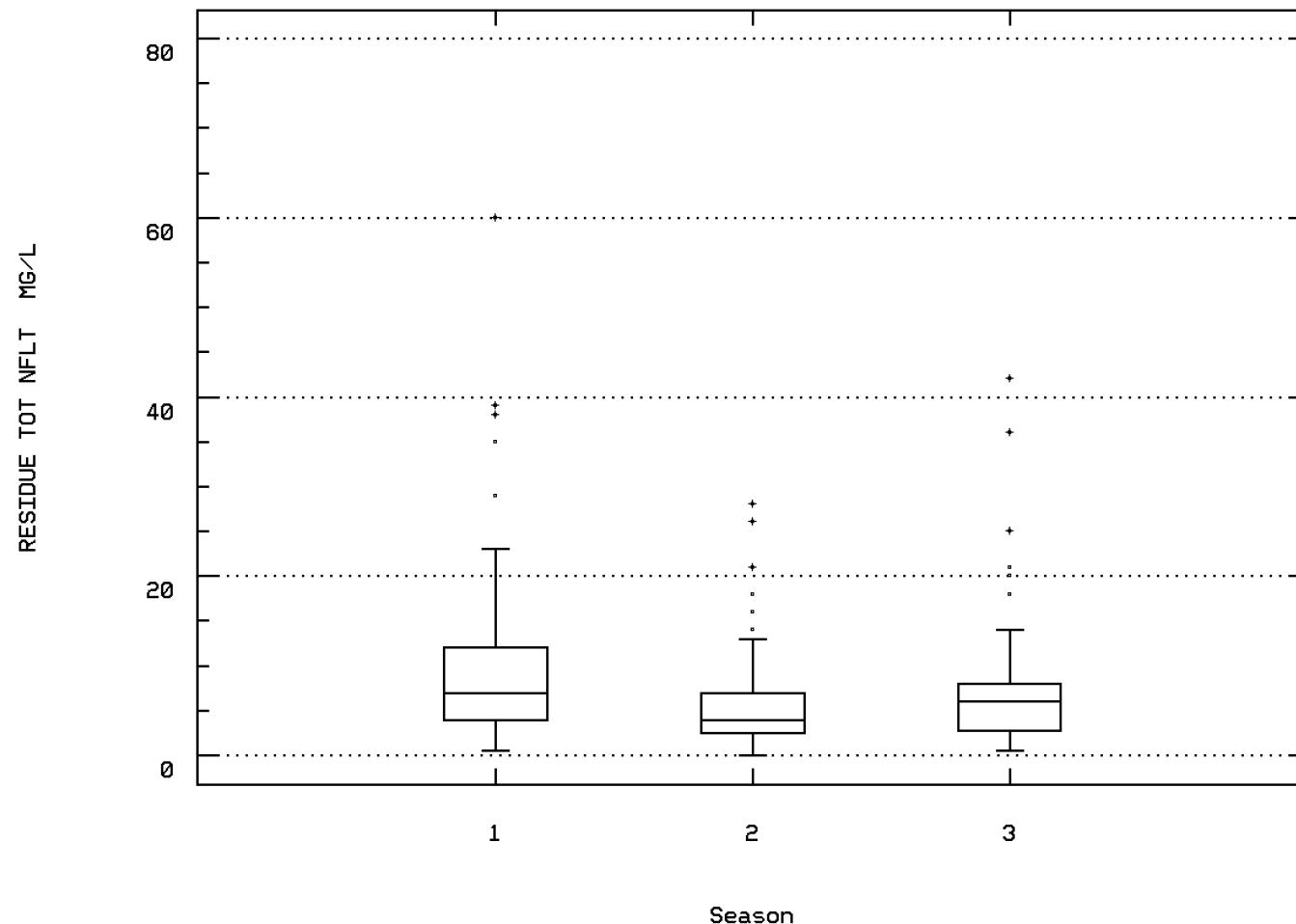
RESIDUE, TOTAL FIXED (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00530

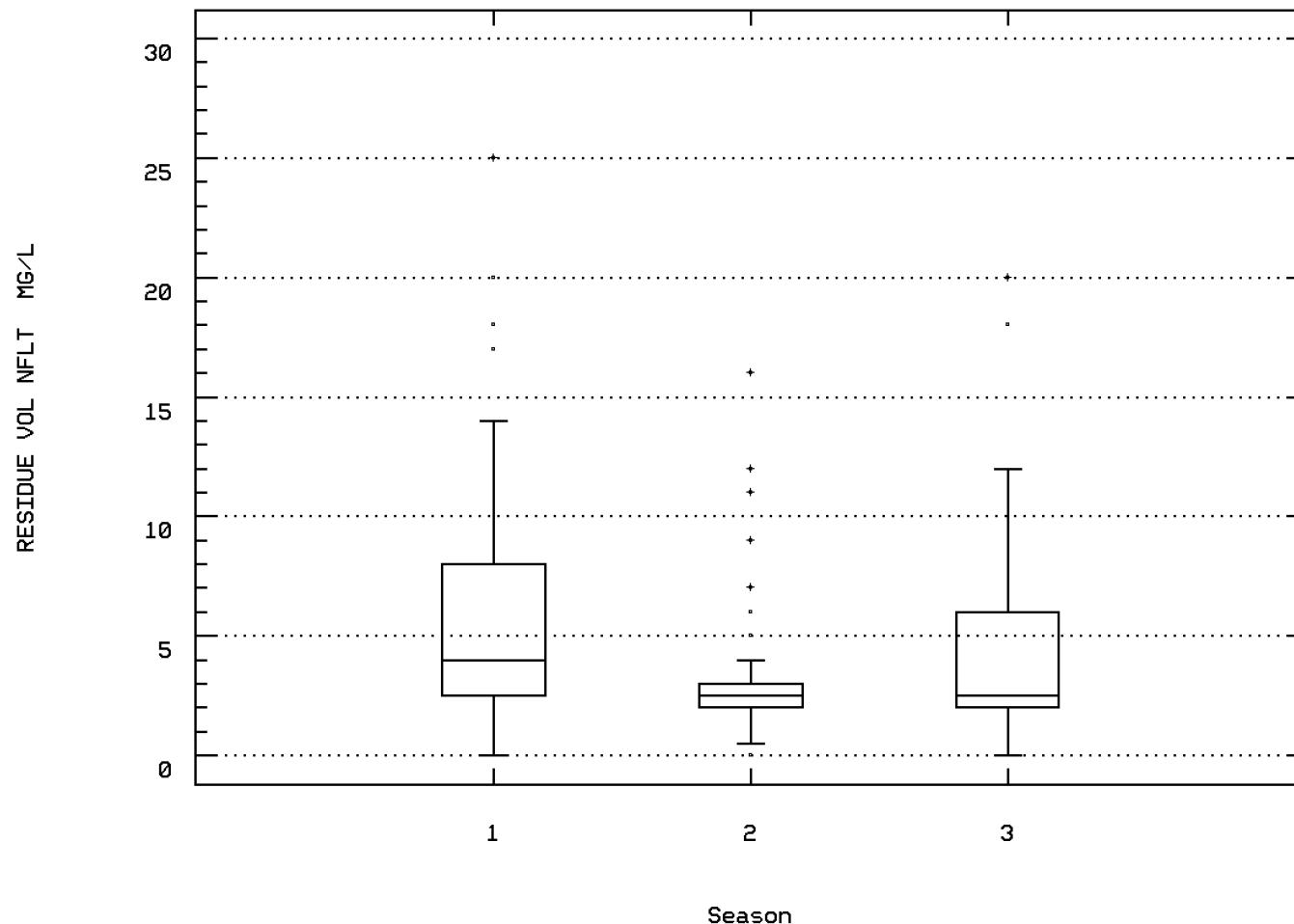
RESIDUE, TOTAL NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00535

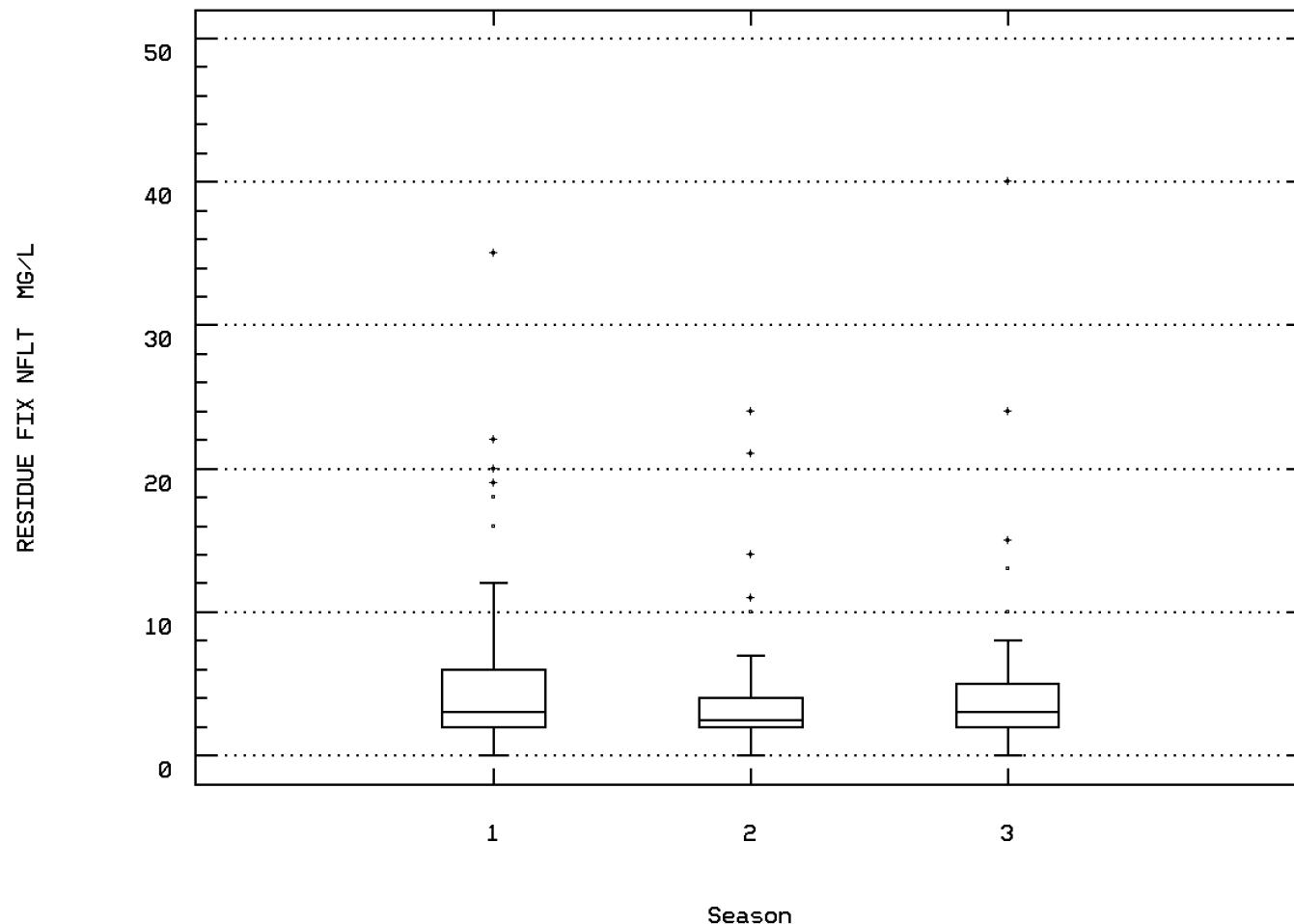
RESIDUE, VOLATILE NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00540

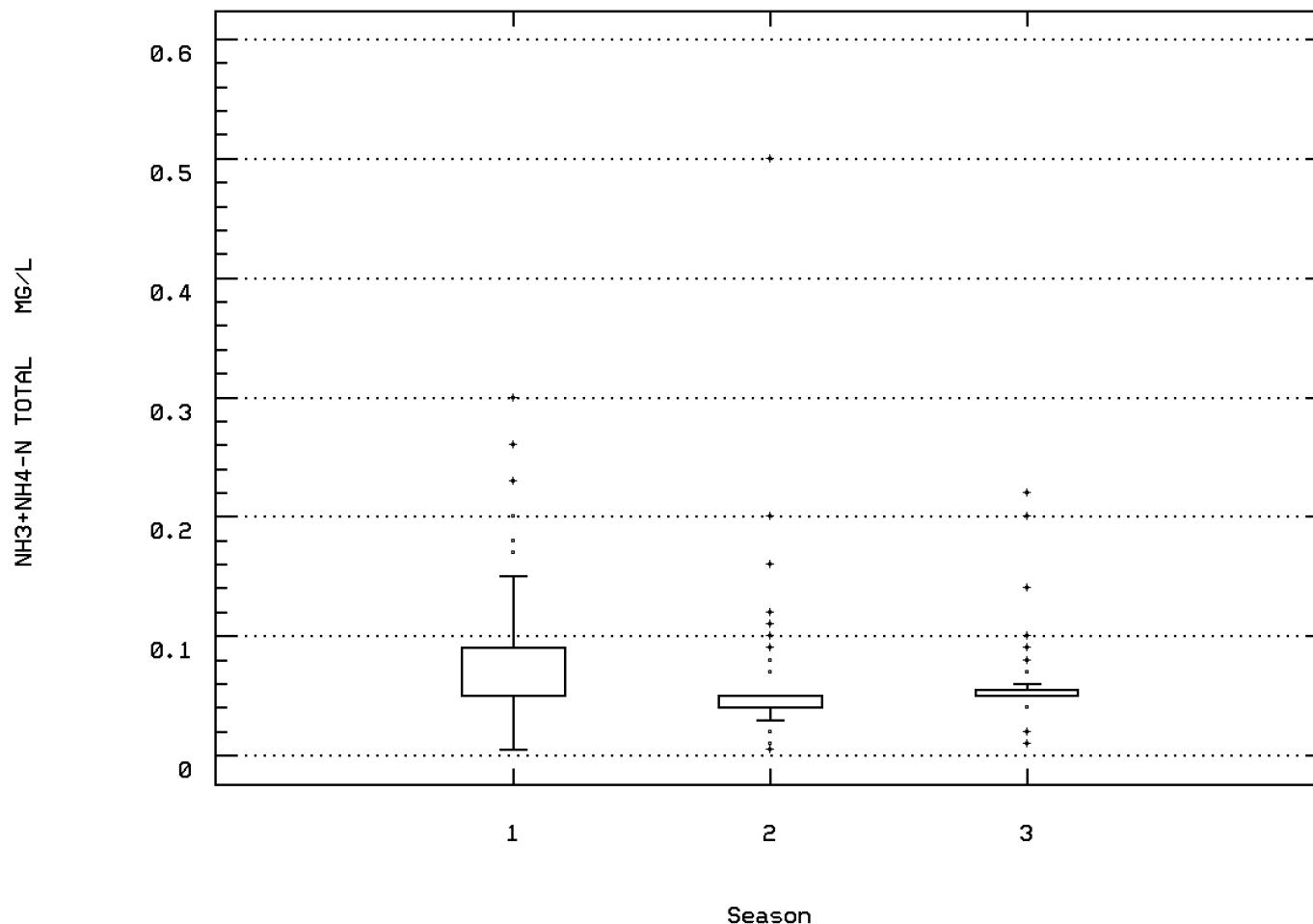
RESIDUE, FIXED NONFILTRABLE (MG/L)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00610

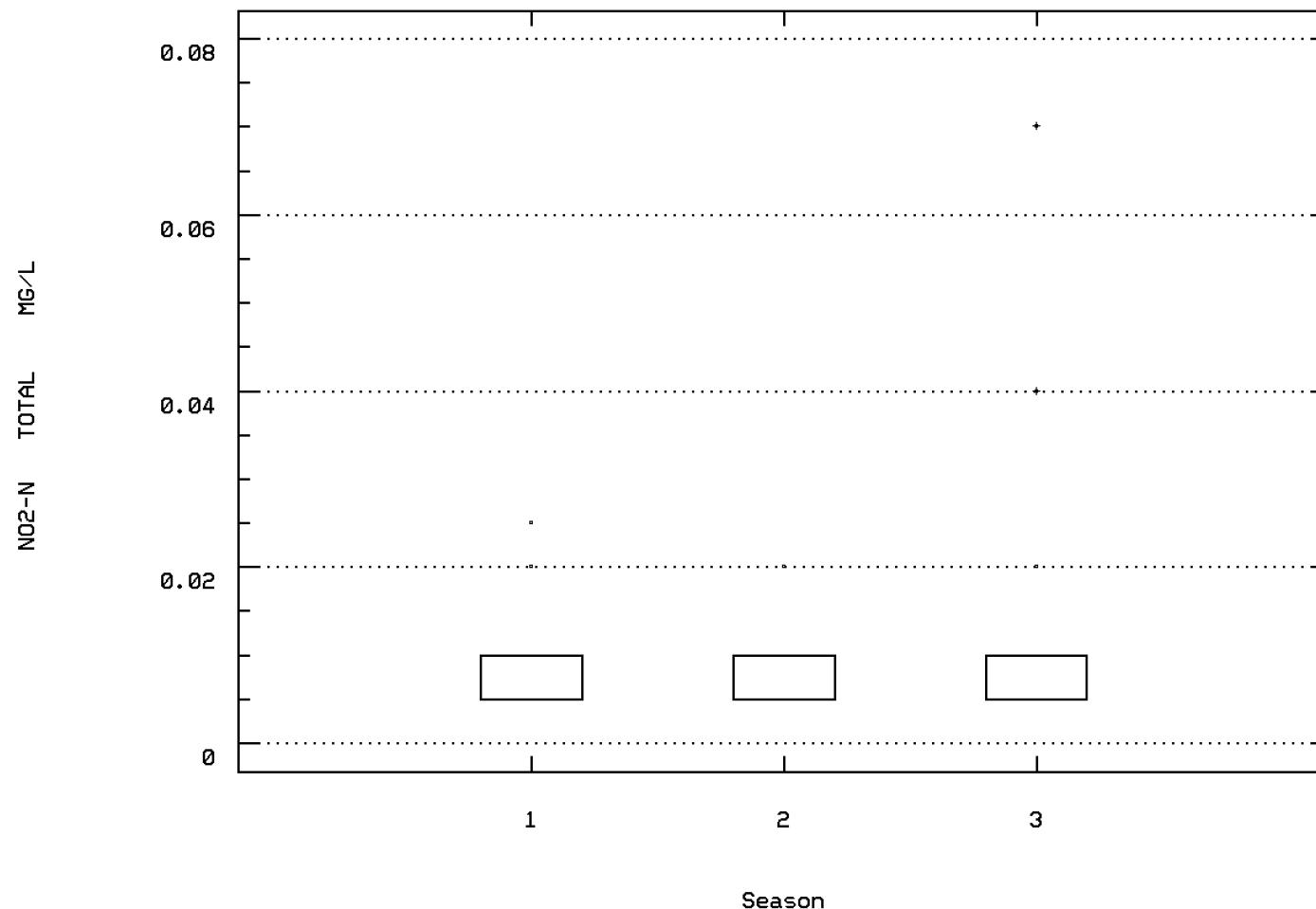
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00615

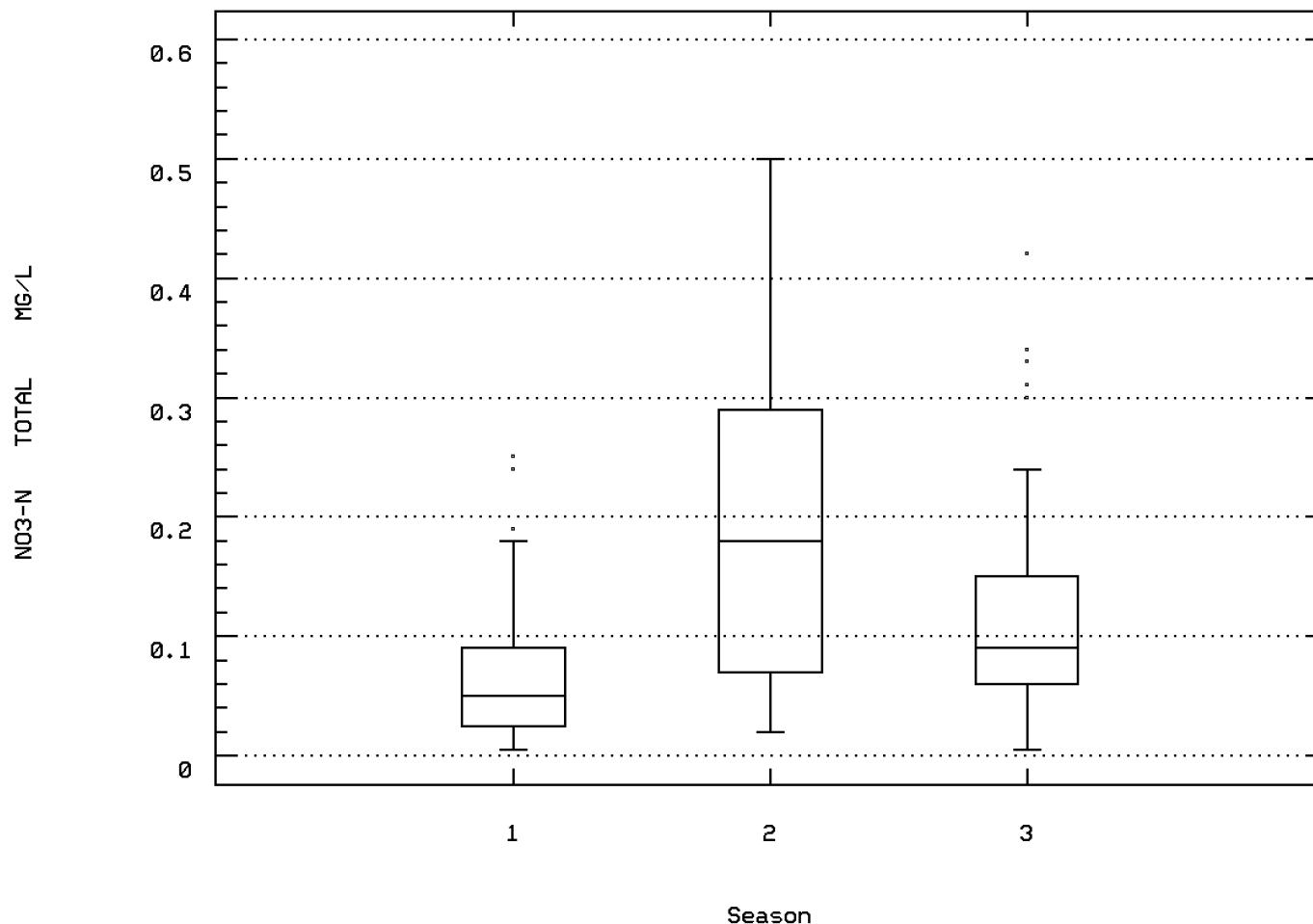
NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00620

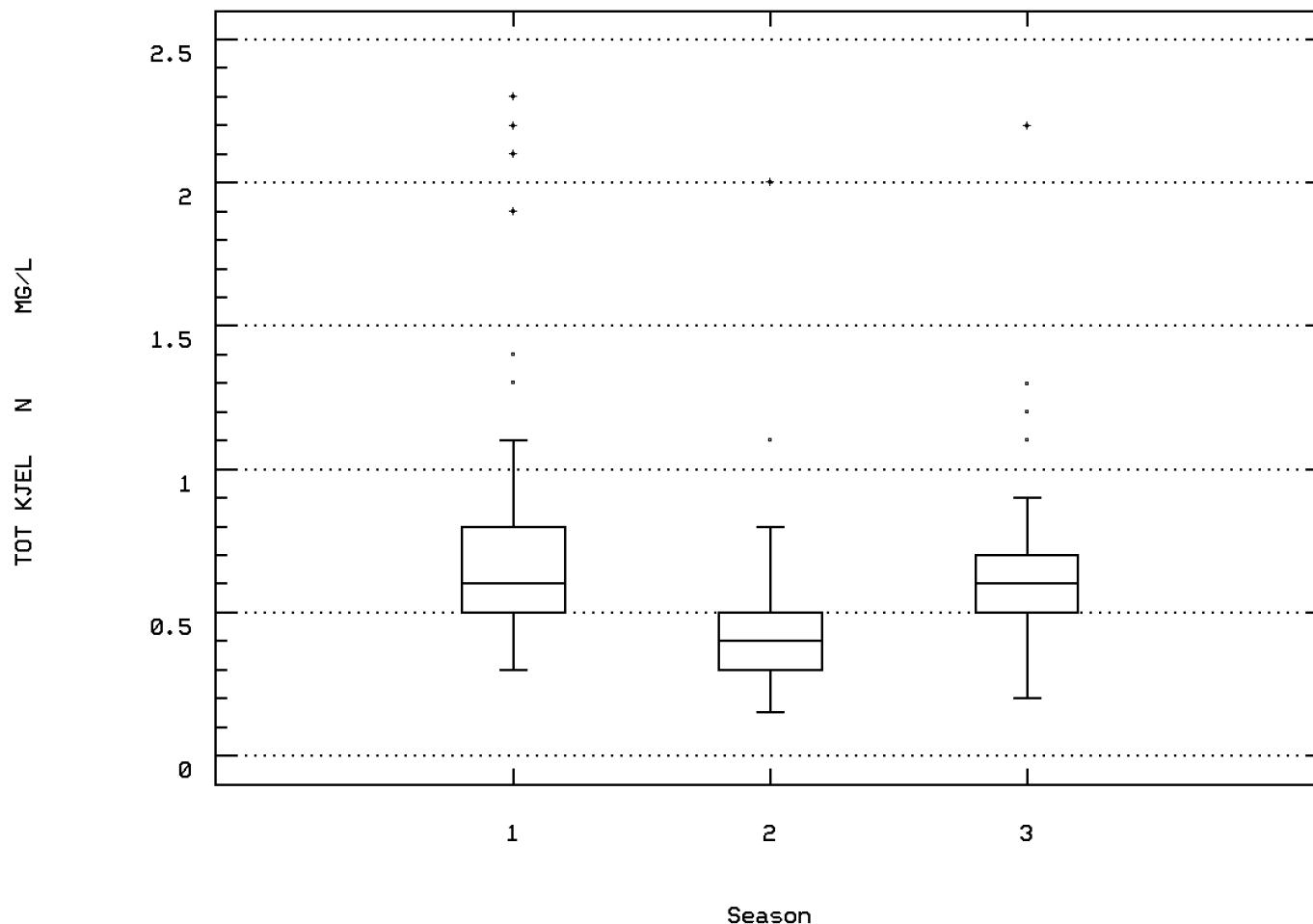
NITRATE NITROGEN, TOTAL (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00625

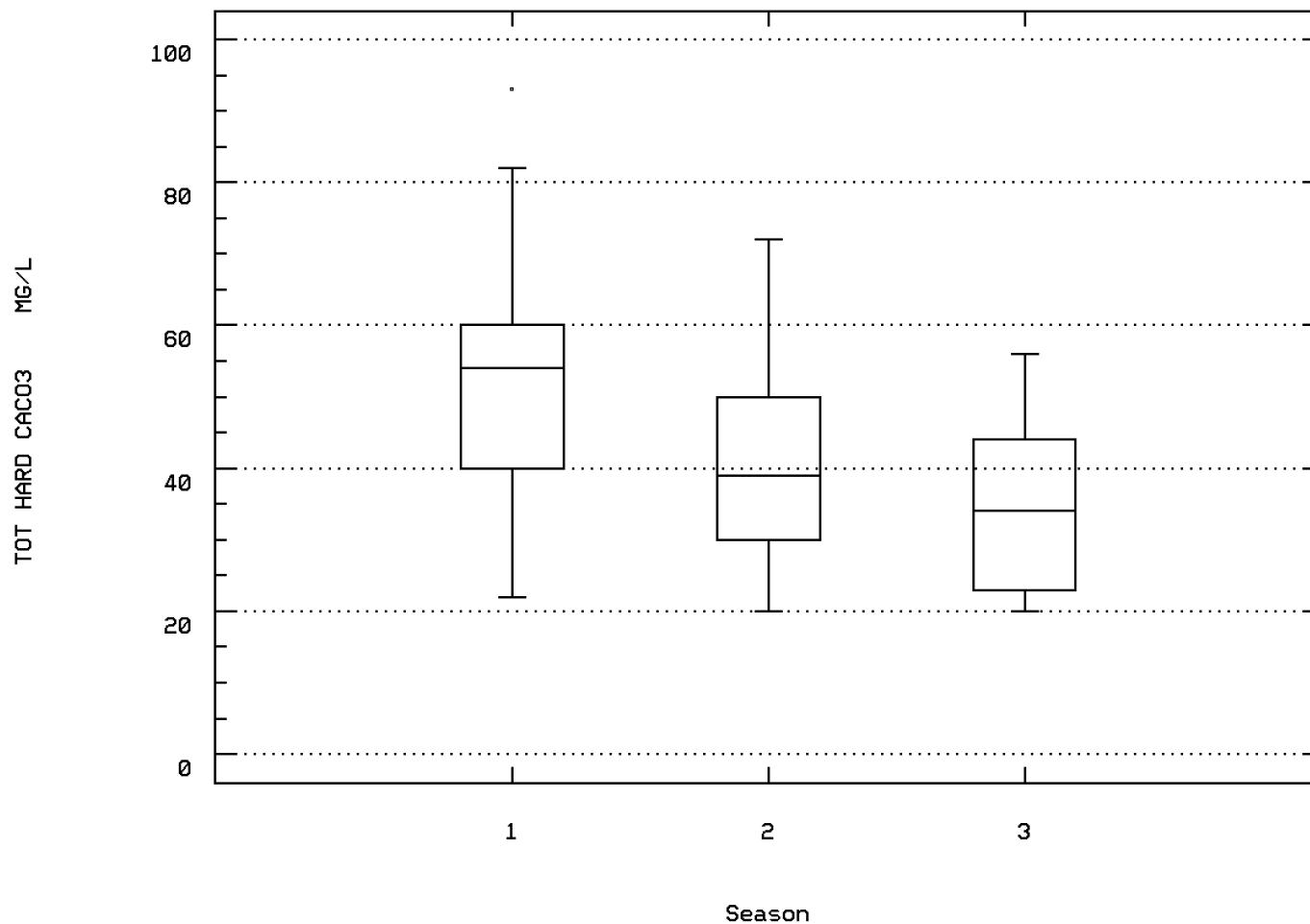
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 00900

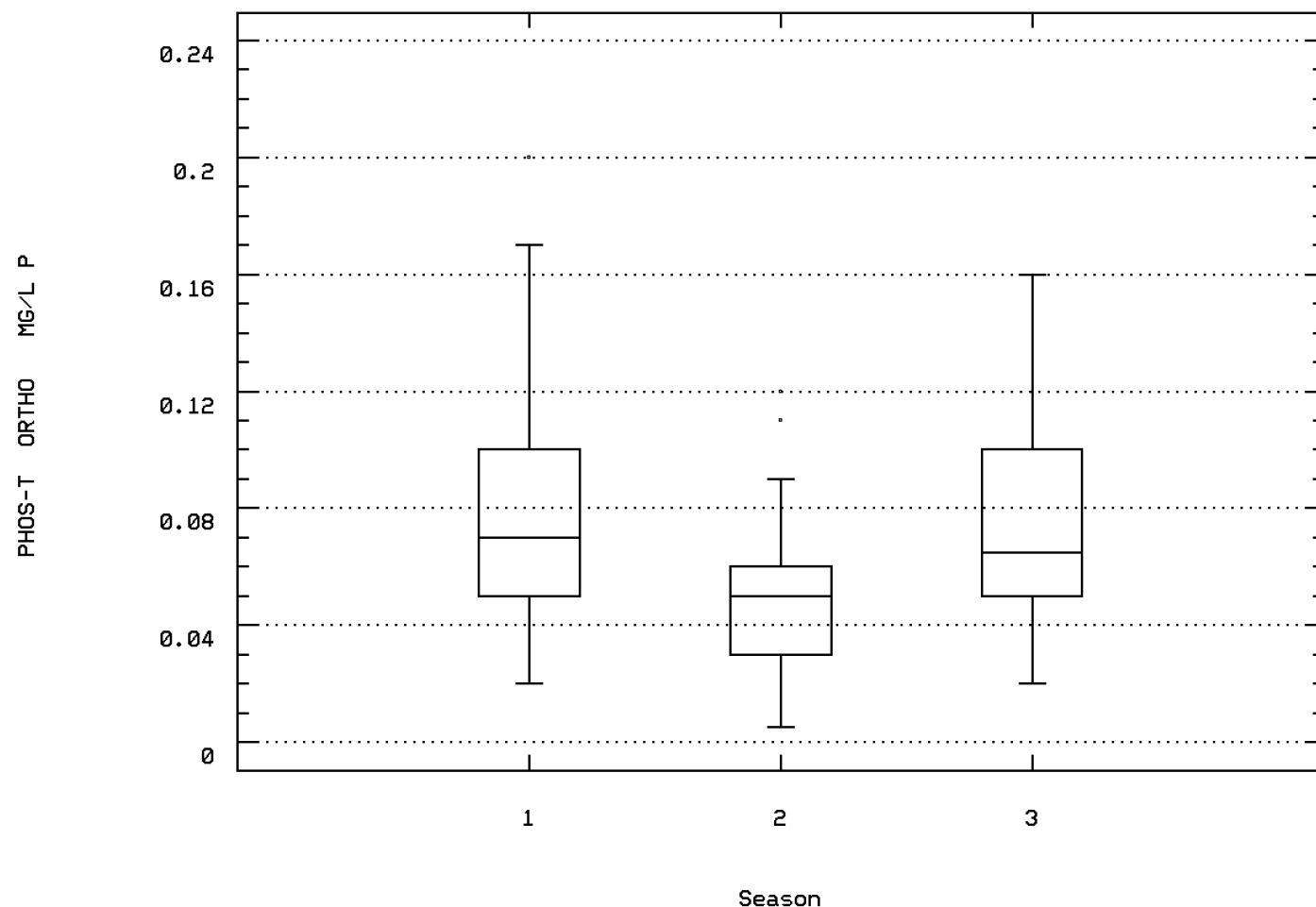
HARDNESS, TOTAL (MG/L AS CACO<sub>3</sub>)



RT. 360 BRIDGE

Station: RICH0134 Parameter Code: 70507

PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/



RT. 360 BRIDGE

## Station Inventory for Station: RICH0135

NPS Station ID: RICH0135	LAT/LON: 37.595281/ -77.382504	Agency: 112WRD	Date Created: 02/01/92
Location: CHICKAHOMINY R AT RT 360 NR MECHANICSVILLE, VA		FIPS State/County: 51087 VIRGINIA/HENRICO	
Station Type: /TYP/A/MBNT/STREAM		STORET Station ID(s): 02042430	
RMI-Indexes:		Within Park Boundary: No	
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin:	Elevation: 0	Water Body Id:	
Minor Basin:		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 2.90	On/Off RF1:
RF3 Index: 02080206006215.09	RF3 Mile Point: 15.09	Distance from RF3: 0.03	On/Off RF3:
Description:			

### Parameter Inventory for Station: RICH0135

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/16/85-08/16/85	1	25.	25.	25.	0.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/16/85-08/16/85	1	24.	24.	24.	0.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	08/16/85-08/16/85	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/16/85-08/16/85	1	217.	217.	217.	217.	217.	0.	0.	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0136

NPS Station ID: RICH0136

LAT/LON: 37.595837/ -77.358892

NSI Station ID: RCH10156 Elevation: 571  
Location: BEAVERDAM CREEK AT RT 156 AT MECHANICSVILLE, VA  
Station Type: /TYP/A/MBNT/STREAM

### Station Type: RMI-Indexes

### RMI INDEXES

KMII-MILES.  
HUC: 02080206

HUC: 02080200  
Major Basin:

Major Basin.  
Minor Basin:

Mihai Basin.  
REL Index: 02080206

RF1 Index.

RF3 Index:

Depth of Water: 0

Depth of water

RF1 Mile Point: 0.000

RF3 Mile Point: 0.00

Agency: 112WRD

FIPS State/County: 51085 VIRGINIA/HANOVER

THIS State/County: 51085 VIRGINIA  
STORET Station ID(s): 02042433

Within Park Boundary: Yes

Date Created: 12/22/84

## Aquifer:

## Aquifer Water Body Id:

Water Body  
ECO Region

ECU region.  
Distance from RE1: 0.50

Distance from RF1: 0.50  
Distance from RF3: 0.03

On/Off RE1

On/Off RF1  
On/Off RF3

## Parameter Inventory for Station: RICH0136

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-09/12/89	10	21.5	19.8	25.	12.	28.456	5.334	12.05	14.75	25.	25.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-09/12/89	8	24.5	20.875	27.5	10.	41.339	6.43	**	**	**	**
00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/12/89	6	754.	756.167	767.	750.	43.367	6.585	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-09/12/89	10	7.5	8.2	20.	2.	26.622	5.16	2.1	4.5	10.5	19.2
00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	6	56.	59.167	80.	40.	250.967	15.842	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-09/12/89	10	106.5	109.7	170.	88.	562.233	23.711	88.5	93.	116.25	165.
00300	OXYGEN, DISSOLVED MG/L	04/08/87-04/05/89	5	7.9	8.3	10.6	5.2	5.07	2.252	**	**	**	**
00400	PH (STANDARD UNITS)	04/08/87-09/12/89	6	6.5	6.483	6.8	6.	0.07	0.264	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/08/87-09/12/89	6	6.5	6.406	6.8	6.	0.077	0.277	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/12/89	6	0.316	0.393	1.	0.158	0.092	0.304	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	6	7.	7.117	7.6	6.7	0.13	0.36	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/08/87-09/12/89	6	6.989	7.009	7.6	6.7	0.144	0.379	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/12/89	6	0.103	0.098	0.2	0.025	0.004	0.066	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/10/84-09/12/89	7	0.03	0.041	0.08	0.005	0.001	0.029	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/84-09/12/89	7	0.4	0.457	0.6	0.3	0.02	0.14	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/10/84-09/12/89	7	1.	0.957	1.7	0.4	0.223	0.472	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/10/84-09/12/89	7	0.025	0.025	0.057	0.005	0.	0.017	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	6	0.005	0.007	0.02	0.001	0.	0.007	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/10/84-09/12/89	7	0.004	0.004	0.009	0.001	0.	0.003	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/10/84-09/12/89	7	4.8	4.714	6.	3.3	1.135	1.065	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	6	3.85	4.083	5.2	3.4	0.43	0.655	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	6	2.6	2.583	3.	2.1	0.098	0.313	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	6	9.45	9.717	11.	8.6	1.186	1.089	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	6	2.2	2.3	3.3	1.5	0.368	0.607	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	6	12.	12.333	15.	10.	2.667	1.633	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	6	9.5	9.333	12.	6.	6.267	2.503	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	6	0.1	0.125	0.3	0.05	0.008	0.088	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	04/08/87-09/12/89	6	3.95	4.033	6.	2.4	2.667	1.633	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	4##	0.75	0.75	1.	0.5	0.083	0.289	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	2##	1.25	1.25	2.	0.5	1.125	1.061	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/12/89	4##	0.75	1.75	5.	0.5	4.75	2.179	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/12/89	4##	0.5	0.875	2.	0.5	0.563	0.75	**	**	**	**
01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	4##	0.5	0.625	1.	0.5	0.063	0.25	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	2##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	4	2.5	2.75	4.	2.	0.917	0.957	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	6	1700.	1866.667	3000.	1300.	390666.667	625.033	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	6	340.	366.667	610.	150.	23186.667	152.272	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	2##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0136

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	4 ##	2.5	2.625	.3.	2.5	0.063	0.25	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	6	95.	98.333	140.	70.	616.667	24.833	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/12/89	6	79.5	91.667	140.	62.	973.867	31.207	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/12/89	4 ##	0.75	1.75	.5.	0.5	4.75	2.179	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	2	8.	8.	10.	6.	8.	2.828	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	4 ##	5.	8.75	20.	5.	56.25	7.5	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	4	89.5	89.	94.	83.	24.667	4.967	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	2 ##	0.05	0.05	0.05	0.05	0.05	0.	0.	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	4 ##	0.05	0.05	0.05	0.05	0.05	0.	0.	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	4	6.5	10.25	23.	5.	74.25	8.617	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0136

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	5	0	0.00	2	0	0.00	3	0	0.00					
00400	PH	Fresh Chronic	9.	6	0	0.00	3	0	0.00	3	0	0.00					
		Other-Lo Lim.	6.5	6	4	0.67	3	2	0.67	3	2	0.67					
00403	PH, LAB	Fresh Chronic	9.	6	0	0.00	3	0	0.00	3	0	0.00					
		Other-Lo Lim.	6.5	6	0	0.00	3	0	0.00	3	0	0.00					
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	7	0	0.00	4	0	0.00	3	0	0.00					
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	6	0	0.00	3	0	0.00	3	0	0.00					
		Drinking Water	250.	6	0	0.00	3	0	0.00	3	0	0.00					
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	6	0	0.00	3	0	0.00	3	0	0.00					
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	6	0	0.00	3	0	0.00	3	0	0.00					
01002	ARSENIC, TOTAL	Fresh Acute	360.	4	0	0.00	2	0	0.00	2	0	0.00					
		Drinking Water	50.	4	0	0.00	2	0	0.00	2	0	0.00					
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	2	0	0.00	1	0	0.00	1	0	0.00					
		Drinking Water	5.	2	0	0.00	1	0	0.00	1	0	0.00					
01027	CADMIUM, TOTAL	Fresh Acute	3.9	4	1	0.25	2	0	0.00	2	1	0.50					
		Drinking Water	5.	4	1	0.25	2	0	0.00	2	1	0.50					
01034	CHROMIUM, TOTAL	Drinking Water	100.	4	0	0.00	2	0	0.00	2	0	0.00					
01040	COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00	1	0	0.00					
		Drinking Water	1300.	2	0	0.00	1	0	0.00	1	0	0.00					
01042	COPPER, TOTAL	Fresh Acute	18.	4	0	0.00	2	0	0.00	2	0	0.00					
		Drinking Water	1300.	4	0	0.00	2	0	0.00	2	0	0.00					
01049	LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00	1	0	0.00					
		Drinking Water	15.	2	0	0.00	1	0	0.00	1	0	0.00					
01051	LEAD, TOTAL	Fresh Acute	82.	4	0	0.00	2	0	0.00	2	0	0.00					
		Drinking Water	15.	4	0	0.00	2	0	0.00	2	0	0.00					
01067	NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00	2	0	0.00	2	0	0.00					
		Drinking Water	100.	4	0	0.00	2	0	0.00	2	0	0.00					
01090	ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	1	0	0.00	1	0	0.00					
		Drinking Water	5000.	2	0	0.00	1	0	0.00	1	0	0.00					
01092	ZINC, TOTAL	Fresh Acute	120.	4	0	0.00	2	0	0.00	2	0	0.00					
		Drinking Water	5000.	4	0	0.00	2	0	0.00	2	0	0.00					
01147	SELENIUM, TOTAL	Fresh Acute	20.	4	0	0.00	2	0	0.00	2	0	0.00					
		Drinking Water	50.	4	0	0.00	2	0	0.00	2	0	0.00					
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00					
		Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00					
71900	MERCURY, TOTAL	Fresh Acute	2.4	4	0	0.00	2	0	0.00	2	0	0.00					
		Drinking Water	2.	4	0	0.00	2	0	0.00	2	0	0.00					

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0137

NPS Station ID: RICH0137  
 Location: YOUGS POND CENTER (HENRICO CO)  
 Station Type: /TYP/A MBNT/LAKE  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: UPHAM RUN SECTION: 05 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA  
 LAKE STATION

LAT/LON: 37.596670/ -77.471115

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-UPM005.90  
 Within Park Boundary: No

Date Created: 07/10/93

Depth of Water: 0

Elevation: 0

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

## Parameter Inventory for Station: RICH0137

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0138

NPS Station ID: RICH0138  
 Location: YOUNGS POND INFLOW (HENRICO CO)  
 Station Type: /TYP/A MBNT/LAKE  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080205  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080205  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: UPHAM RUN YOUNGS POND SECTION: 05 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA  
 LAKE STATION

LAT/LON: 37.597226/ -77.465281

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-UPM006.30  
 Within Park Boundary: No

Date Created: 06/26/93

Depth of Water: 0

Elevation: 0

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 1.58

## Parameter Inventory for Station: RICH0138

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0139

NPS Station ID: RICH0139  
 Location: YOUNGS POND OUTFALL  
 Station Type: /TYP/A/MBNT/LAKE  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: UPHAM RUN SECTION: 05 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA  
 LAKE STATION

LAT/LON: 37.598059/ -77.471948

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-UPM005.64  
 Within Park Boundary: No

Date Created: 06/26/93

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0139

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
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\*\*\*\*\* No Parameter Data Available for this Station \*\*\*\*\*

## Station Inventory for Station: RICH0140

NPS Station ID: RICH0140  
 Location: BEAVERDAM CREEK, RT 156 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2- JAMES REGION: 4 PIEDMONT  
 RIVER: BEAVERDAM CREEK SECTION: 05 TOPO MAP #: 0039 TOPO MAP NAME: SEVEN PINES, VA

LAT/LON: 37.598337/ -77.358616

Agency: 21VASWCB  
 FIPS State/County: 51085 VIRGINIA/HANOVER  
 STORET Station ID(s): 2-BEV002.00  
 Within Park Boundary: No

Date Created: 05/06/95

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0140

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/19/94-10/19/94	2	20.4	20.4	27.2	13.6	92.48	9.617	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	10/19/94-10/19/94	1	114.	114.	114.	114.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	07/19/94-10/19/94	2	6.6	6.6	7.6	5.6	2.	1.414	**	**	**	**
00400	PH (STANDARD UNITS)	07/19/94-10/19/94	2	6.265	6.265	6.36	6.17	0.018	0.134	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/19/94-10/19/94	2	6.255	6.255	6.36	6.17	0.018	0.135	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/19/94-10/19/94	2	0.556	0.556	0.676	0.437	0.029	0.169	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0140

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	2	0	0.00	1	0	0.00	1	0	0.00						
00400	PH	Fresh Chronic	9.	2	0	0.00	1	0	0.00	1	0	0.00						
		Other-Lo Lim.	6.5	2	2	1.00	1	1	1.00	1	1	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0141

NPS Station ID: RICH0141  
 Location: THREE LAKES PARK LAKE CENTER (HENRICO CO)  
 Station Type: /TYPAL/AMBNT/LAKE  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206000501.22  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 - JAMES REGION: 4 PIEDMONT  
 RIVER: THREE LAKES PARK LAKE SECTION: 05 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA  
 LAKE STATION

LAT/LON: 37.608337/ -77.441670

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-TLP000.10  
 Within Park Boundary: No

Date Created: 06/26/93

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 1.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0141

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/11/88-07/11/88	1 ##	0.02	0.02	0.02	0.	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	07/11/88-07/11/88	1	0.01	0.01	0.01	0.	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	07/11/88-07/11/88	1 ##	0.02	0.02	0.02	0.	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/11/88-07/11/88	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/11/88-07/11/88	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	07/11/88-07/11/88	1	2400.	2400.	2400.	2400.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	07/11/88-07/11/88	1	3.38	3.38	3.38	3.38	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		2400.							

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

## EPA Water Quality Criteria Analysis for Station: RICH0141

Parameter	Std. Type	Total Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14	10/15-3/15	3/16-6/30	n/a
00615	Drinking Water	1.	1	0	0.00	1	0	0.00	
00620	Drinking Water	10.	1	0	0.00	1	0	0.00	
31616	Other-Hi Lim.	200.	1	1	1.00	1	1	1.00	

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0142

NPS Station ID: RICH0142	LAT/LON: 37.610282/ -77.409448	Agency: 112WRD	Date Created: 12/22/84
Location: UPHAM BROOK AT RT 627 NEAR RICHMOND, VA	FIPS State/County: 51087 VIRGINIA/HENRICO		
Station Type: /TYP/A/MBNT/STREAM	STORET Station ID(s): 02042427		
RMI-Indexes:	Within Park Boundary: No		
RMI-Miles:			
HUC: 02080206	Depth of Water: 0	Aquifer:	
Major Basin:	Elevation: 0	Water Body Id:	
Minor Basin:		ECO Region:	
RF1 Index: 02080206	RF1 Mile Point: 0.000	Distance from RF1: 1.40	On/Off RF1:
RF3 Index: 02080206006213.37	RF3 Mile Point: 13.37	Distance from RF3: 0.02	On/Off RF3:
Description:			

### Parameter Inventory for Station: RICH0142

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-08/16/85	4	22.	19.75	24.5	10.5	42.083	6.487	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-08/16/85	4	23.25	21.25	25.	13.5	28.417	5.331	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-08/16/85	4	1.35	4.	13.	0.3	36.527	6.044	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-08/16/85	4	222.5	225.	235.	220.	50.	7.071	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/10/84-09/10/84	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/84-09/10/84	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/10/84-09/10/84	1##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/10/84-09/10/84	1	0.09	0.09	0.09	0.09	0.09	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/10/84-09/10/84	1	0.02	0.02	0.02	0.02	0.02	0.	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/10/84-09/10/84	1	6.	6.	6.	6.	6.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0142

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	1	0	0.00	1	0	0.00	0	0	0	0.00	0	0	0	0

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0143

NPS Station ID: RICH0143  
 Location: RT. 627 BRIDGE  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206  
 RF3 Index: 02080206006211.63  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: CHICKAHOMINY RI. SECTION: 05 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.611392/ -77.371726

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-CHK064.64 /VA2-05-X0058/VA2-4X0058  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 12.87

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.01

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0143

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	108	16.1	15.756	30.	0.	64.502	8.031	5.48	8.45	22.2	25.65
00300 OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	107	7.	6.942	13.4	0.8	10.028	3.167	2.96	4.1	9.8	11.04
00310 BOD, 5 DAY, 20 DEG C MG/L	10/12/67-09/09/75	21	2.6	2.538	5.	1.	0.667	0.817	1.36	2.1	2.8	3.48
00400 PH (STANDARD UNITS)	09/20/67-06/14/79	108	6.5	6.506	8.	2.	0.319	0.565	6.	6.4	6.7	7.
00400 CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	108	6.5	4.032	8.	2.	6.497	2.549	6.	6.4	6.7	7.
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	108	0.316	92.978	10000.	0.01	925854.042	962.213	0.1	0.2	0.398	1.
00403 PH, LAB, STANDARD UNITS SU	09/20/67-10/29/70	12	6.55	6.492	7.2	5.4	0.179	0.423	5.67	6.4	6.6	7.11
00403 CONVERTED PH, LAB, STANDARD UNITS	09/20/67-10/29/70	12	6.547	6.223	7.2	5.4	0.258	0.508	5.67	6.4	6.6	7.11
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-10/29/70	12	0.284	0.599	3.981	0.063	1.149	1.072	0.082	0.251	0.398	2.937
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	09/20/67-10/29/70	12	15.5	20.25	49.	3.	216.386	14.71	4.5	10.	32.5	47.2
00500 RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	101	107.	120.01	989.	1.	8960.49	94.66	72.	86.5	133.	171.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	103	44.	46.816	137.	2.	527.309	22.963	18.2	33.	59.	75.2
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	99	60.	74.697	881.	12.	7568.601	86.998	33.	47.	84.	108.
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	99	7.	11.167	102.	0.	258.413	16.075	0.5	3.	11.	24.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	102	3.	4.696	44.	0.	34.451	5.87	0.5	1.75	6.	9.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	96	3.	6.771	74.	0.	157.084	12.533	0.	1.	6.	16.6
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	100 ##	0.05	0.092	1.	0.005	0.018	0.135	0.031	0.05	0.07	0.2
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	100 ##	0.005	0.01	0.11	0.005	0.	0.016	0.005	0.005	0.01	0.01
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	82	0.12	0.161	1.189	0.005	0.03	0.173	0.022	0.06	0.213	0.361
00625 NITROGEN, KIELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	99	0.5	0.765	8.699	0.2	0.875	0.935	0.3	0.4	0.8	1.
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	18 ##	0.025	0.123	0.48	0.025	0.024	0.156	0.025	0.025	0.208	0.444
00660 PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/68-07/16/69	4	0.195	0.203	0.25	0.17	0.001	0.034	**	**	**	**
00900 HARDESS, TOTAL (MG/L AS CACO3)	09/20/67-10/12/67	2	32.	32.	36.	28.	32.	5.657	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	07/30/75-07/30/75	1	11.	11.	11.	11.	0.	0.	**	**	**	**
01002 ARSENIC, TOTAL (UG/L AS AS)	04/28/71-11/20/78	8 ##	2.	1.813	2.5	1.	0.567	0.753	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	11/23/70-11/20/78	12 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01034 CHROMIUM, TOTAL (UG/L AS CR)	03/24/70-11/20/78	22 ##	5.	7.5	20.	5.	13.69	3.7	5.	5.	10.	10.
01042 COPPER, TOTAL (UG/L AS CU)	03/24/70-11/20/78	21 ##	5.	7.381	20.	5.	21.548	4.642	5.	5.	10.	18.
01045 IRON, TOTAL (UG/L AS FE)	06/29/70-11/20/78	4	1769.5	1884.75	3000.	1000.	775396.917	880.566	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	06/29/70-11/20/78	18 ##	5.	7.972	26.	1.	41.367	6.432	1.9	4.75	10.	20.6
01055 MANGANESE, TOTAL (UG/L AS MN)	03/24/70-11/20/78	4	164.9	577.45	1900.	80.	779813.337	883.07	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	01/23/73-11/20/78	9 ##	50.	40.	50.	5.	393.75	19.843	5.	27.5	50.	50.
01092 ZINC, TOTAL (UG/L AS ZN)	03/24/70-11/20/78	22	10.	28.636	240.	5.	2717.1	52.126	5.	5.	20.	88.

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	09/20/67-10/28/77	18	4450.	23987.222	110000.	430.	1359253480.065	36868.055	430.	670.	43000.	94700.
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150	09/20/67-10/28/77	18	3.648	3.737	5.041	2.633	0.733	0.856	2.633	2.815	4.633	4.976
31505	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506				5457.039								
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	87 ##	50.	302.299	7100.	50.	900808.607	949.109	50.	50.	200.	300.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	87 ##	1.699	2.005	3.851	1.699	0.209	0.457	1.699	1.699	2.301	2.477
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				101.27								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	08/11/74-08/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	95	0.1	0.093	0.3	0.05	0.003	0.059	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	95	0.05	0.086	2.	0.005	0.041	0.202	0.03	0.04	0.1	0.1
71900	MERCURY, TOTAL (UG/L AS HG)	09/21/70-11/20/78	19 ##	0.25	0.225	0.25	0.025	0.004	0.063	0.1	0.25	0.25	0.25

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0143

Parameter	Std. Type	Std. Value	Total	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs			Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	107	25	0.23	32	16	0.50	42	4	0.10	33	5	0.15		
00400	PH	Fresh Chronic	9.	108	0	0.00	33	0	0.00	42	0	0.00	33	0	0.00		
00403	PH, LAB	Other-Lo Lim.	6.5	108	67	0.62	33	22	0.67	42	23	0.55	33	22	0.67		
		Fresh Chronic	9.	12	0	0.00	4	0	0.00	3	0	0.00	5	0	0.00		
		Other-Lo Lim.	6.5	12	6	0.50	4	2	0.50	3	2	0.67	5	2	0.40		
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	100	0	0.00	28	0	0.00	40	0	0.00	32	0	0.00		
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	82	0	0.00	24	0	0.00	32	0	0.00	26	0	0.00		
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	18	0	0.00	4	0	0.00	8	0	0.00	6	0	0.00		
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	1	0	0.00	1	0	0.00								
		Drinking Water	250.	1	0	0.00	1	0	0.00								
01002	ARSENIC, TOTAL	Fresh Acute	360.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00		
		Drinking Water	50.	8	0	0.00	1	0	0.00	3	0	0.00	4	0	0.00		
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00											
		Drinking Water	5.	0 &	0	0.00											
01034	CHROMIUM, TOTAL	Drinking Water	100.	22	0	0.00	2	0	0.00	8	0	0.00	12	0	0.00		
01042	COPPER, TOTAL	Fresh Acute	18.	21	2	0.10	2	1	0.50	8	0	0.00	11	1	0.09		
01051	LEAD, TOTAL	Drinking Water	1300.	21	0	0.00	2	0	0.00	8	0	0.00	11	0	0.00		
		Fresh Acute	82.	18	0	0.00	2	0	0.00	8	0	0.00	8	0	0.00		
01065	NICKEL, DISSOLVED	Drinking Water	15.	18	2	0.11	2	0	0.00	8	2	0.25	8	0	0.00		
		Fresh Acute	1400.	9	0	0.00				3	0	0.00	6	0	0.00		
		Drinking Water	100.	9	0	0.00				3	0	0.00	6	0	0.00		
01092	ZINC, TOTAL	Fresh Acute	120.	22	1	0.05	2	0	0.00	8	1	0.13	12	0	0.00		
		Drinking Water	5000.	22	0	0.00	2	0	0.00	8	0	0.00	12	0	0.00		
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	18	13	0.72	9	7	0.78	4	3	0.75	5	3	0.60		
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	87	22	0.25	24	8	0.33	38	9	0.24	25	5	0.20		
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	0	0.00	1	0	0.00								
71900	MERCURY, TOTAL	Fresh Acute	2.4	19	0	0.00	3	0	0.00	8	0	0.00	8	0	0.00		
		Drinking Water	2.	19	0	0.00	3	0	0.00	8	0	0.00	8	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1967 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	2	19.15	19.15	25.	13.3	68.445	8.273	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	1	4.4	4.4	4.4	0.	0.		**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	1	7.6	7.6	7.6	0.	0.		**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	1	7.6	7.6	7.6	0.	0.		**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	1	0.025	0.025	0.025	0.	0.		**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	2	105.5	105.5	137.	74.	1984.5	44.548	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	2	4.5	4.5	8.	1.	24.5	4.95	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1968 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	5	23.3	21.54	26.1	13.9	21.388	4.625	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	5	4.5	4.3	5.5	2.5	1.325	1.151	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	5	6.5	6.44	7.	6.	0.193	0.439	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	5	6.5	6.281	7.	6.	0.224	0.474	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	5	0.316	0.523	1.	0.1	0.195	0.442	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	1	196.	196.	196.	196.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	1	55.	55.	55.	55.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	1	0.44	0.44	0.44	0.44	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	1##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	1	2.099	2.099	2.099	2.099	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1969 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	3	20.6	17.6	28.9	3.3	170.59	13.061	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	3	7.8	6.933	10.	3.	12.813	3.58	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	3	6.7	6.567	6.9	6.1	0.173	0.416	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	3	6.7	6.428	6.9	6.1	0.202	0.45	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	3	0.2	0.373	0.794	0.126	0.134	0.367	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	3	90.	107.	142.	89.	919.	30.315	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	3	14.	29.	65.	8.	981.	31.321	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	2	79.5	79.5	82.	77.	12.5	3.536	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	2	10.5	10.5	16.	5.	60.5	7.778	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	3	5.	5.667	8.	4.	4.333	2.082	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	2	4.5	4.5	8.	1.	24.5	4.95	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	3	0.05	0.113	0.25	0.04	0.014	0.118	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	3##	0.005	0.04	0.11	0.005	0.004	0.061	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	3	0.06	0.073	0.12	0.04	0.002	0.042	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	3	0.59	1.043	2.269	0.27	1.153	1.074	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1970 - Station RICH0143

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	11	16.1	15.236	23.3	3.9	60.321	7.767	4.	6.1	22.2	23.08
00300 OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	7.8	7.345	11.2	3.6	5.889	2.427	3.76	5.	9.4	10.92
00400 PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.6	6.6	6.9	6.2	0.046	0.214	6.22	6.5	6.8	6.88
00400 CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.6	6.549	6.9	6.2	0.049	0.221	6.22	6.5	6.8	6.88
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	11	0.251	0.283	0.631	0.126	0.024	0.156	0.132	0.158	0.316	0.605
00500 RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	169.	225.545	989.	86.	66069.673	257.04	88.6	102.	201.	832.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	51.	56.455	108.	24.	470.073	21.681	27.4	43.	64.	101.
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	96.	169.091	881.	45.	57615.491	240.032	46.4	56.	153.	738.4
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	8.	17.818	102.	1.	828.364	28.781	1.6	5.	16.	87.
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	4.	7.636	44.	1.	149.255	12.217	1.2	3.	6.	36.8
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	5.5	11.2	58.	0.	310.178	17.612	0.1	1.75	11.5	54.4
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10	0.205	0.27	1.	0.04	0.082	0.287	0.041	0.08	0.338	0.945
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10##	0.005	0.011	0.03	0.005	0.	0.009	0.005	0.005	0.02	0.029
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	10	0.1	0.107	0.28	0.005	0.009	0.094	0.006	0.018	0.19	0.274
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	0.725	1.145	3.	0.4	0.993	0.997	0.4	0.475	1.774	2.99
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	2	3600.	3600.	7100.	100.	24500000.	4949.747	**	**	**	**
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	2	2.926	2.926	3.851	2.	1.714	1.309	**	**	**	**
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			842.615								
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	10	0.125	0.135	0.3	0.05	0.007	0.082	0.05	0.05	0.2	0.29
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	10	0.075	0.1	0.25	0.01	0.007	0.081	0.012	0.03	0.163	0.245

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1971 - Station RICH0143

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	11	15.6	15.773	28.3	1.7	85.196	9.23	2.48	6.7	23.3	28.2
00300 OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	8.	7.591	11.	3.	8.893	2.982	3.2	4.6	10.2	10.96
00400 PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.7	6.491	6.8	5.8	0.113	0.336	5.84	6.3	6.7	6.8
00400 CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.7	6.35	6.8	5.8	0.135	0.367	5.84	6.3	6.7	6.8
00400 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	11	0.2	0.447	1.585	0.158	0.203	0.451	0.158	0.2	0.501	1.468
00500 RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	96.	111.091	166.	52.	1414.891	37.615	58.4	85.	153.	166.
00505 RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	42.	48.727	85.	16.	436.418	20.891	19.4	35.	67.	83.2
00510 RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	65.	62.364	104.	18.	735.255	27.116	18.2	47.	81.	101.2
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	8.	11.545	30.	3.	79.073	8.892	3.2	4.	18.	28.6
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	4.	5.091	10.	2.	9.091	3.015	2.	2.	8.	9.8
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	5.	6.455	23.	1.	46.873	6.846	1.	1.	10.	21.2
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.07	0.084	0.22	0.01	0.005	0.069	0.01	0.04	0.11	0.216
00615 NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.01	0.01	0.02	0.005	0.	0.004	0.006	0.01	0.01	0.018
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	11	0.14	0.186	0.39	0.005	0.02	0.143	0.012	0.08	0.39	0.39
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	11	0.5	0.564	1.	0.3	0.043	0.206	0.32	0.4	0.7	0.96
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	11##	50.	540.909	4600.	50.	1849909.091	1360.114	50.	50.	200.	3820.
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	11##	1.699	2.064	3.663	1.699	0.416	0.645	1.699	1.699	2.301	3.499
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			115.821								
70505 PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	11	0.1	0.114	0.3	0.05	0.006	0.074	0.05	0.05	0.1	0.28
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	11	0.1	0.257	2.	0.03	0.335	0.579	0.034	0.06	0.1	1.632

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0143

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	11	12.2	14.045	30.	2.2	74.937	8.657	2.88	7.2	21.7	28.78
00300 OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	10	10.	8.98	13.2	4.6	9.133	3.022	4.62	6.15	11.4	13.08
00400 PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.5	6.464	6.8	6.2	0.041	0.201	6.2	6.3	6.5	6.8

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1972 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.5	6.424	6.8	6.2	0.042	0.206	6.2	6.3	6.5	6.8
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-06/14/79	11	0.316	0.376	0.631	0.158	0.026	0.16	0.158	0.316	0.501	0.631
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	108.	109.636	172.	67.	1253.655	35.407	68.	77.	146.	168.2
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	46.	45.455	89.	20.	359.873	18.97	20.8	33.	54.	83.2
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	55.	64.182	118.	44.	625.964	25.019	44.	47.	72.	115.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	10.	13.818	60.	4.	258.764	16.086	4.	4.	15.	51.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	3.	5.091	20.	1.	34.291	5.856	1.	2.	6.	18.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	4.	8.727	40.	1.	126.018	11.226	1.4	3.	10.	35.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.02	0.042	0.2	0.005	0.003	0.055	0.005	0.01	0.05	0.172
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	11	0.01	0.01	0.01	0.005	0.	0.002	0.006	0.01	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	11	0.13	0.155	0.29	0.06	0.008	0.09	0.062	0.09	0.28	0.29
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	11	0.5	0.518	1.	0.3	0.056	0.236	0.3	0.3	0.6	0.98
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	11	100.	140.909	400.	50.	10909.091	104.447	50.	50.	200.	360.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	11	2.	2.055	2.602	1.699	0.087	0.296	1.699	1.699	2.301	2.542
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	113.431								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	11 ##	0.05	0.073	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	11	0.06	0.065	0.1	0.03	0.001	0.025	0.032	0.04	0.09	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1973 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	11	17.8	14.7	25.6	6.1	51.64	7.186	6.22	7.8	21.1	24.92
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	8.	7.627	13.2	2.	10.4	3.225	2.6	5.	10.3	12.76
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.5	6.145	6.8	2.	1.925	1.387	2.82	6.5	6.7	6.78
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.5	3.041	6.8	2.	12.524	3.539	2.82	6.5	6.7	6.78
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-06/14/79	11	0.316	909.37	10000.	0.158	9090351.403	3015.021	0.167	0.2	0.316	8000.159
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	100.	90.273	123.	1.	1278.218	35.752	13.6	75.	121.	122.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	33.	32.727	67.	11.	248.218	15.755	11.2	22.	42.	62.2
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	65.	66.727	110.	12.	950.018	30.822	16.2	38.	99.	108.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	7.	9.273	24.	1.	60.618	7.786	1.2	2.	17.	23.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	3.	5.	20.	0.	34.8	5.899	0.2	1.	9.	17.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	2.5	4.7	22.	0.	43.122	6.567	0.1	1.	5.75	20.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	11 ##	0.05	0.135	0.7	0.02	0.038	0.195	0.026	0.05	0.16	0.6
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	11 ##	0.005	0.007	0.01	0.005	0.	0.003	0.005	0.005	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	11	0.13	0.265	1.189	0.005	0.112	0.334	0.008	0.06	0.34	1.039
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	11	0.9	0.927	1.399	0.3	0.068	0.261	0.4	0.9	1.	1.339
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	10	100.	110.	300.	50.	6555.556	80.966	50.	50.	125.	290.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	10	2.	1.957	2.477	1.699	0.074	0.271	1.699	1.699	2.075	2.46
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	90.657								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	11	0.1	0.1	0.2	0.05	0.003	0.055	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	11	0.1	0.088	0.15	0.05	0.001	0.031	0.05	0.05	0.1	0.14

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	10	14.45	16.11	27.2	6.7	65.75	8.109	6.81	9.	24.7	27.04
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	10	7.1	7.92	12.4	4.	7.426	2.725	4.15	5.875	10.975	12.28
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	10	6.5	6.58	7.	6.	0.086	0.294	6.05	6.5	6.85	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	10	6.5	6.487	7.	6.	0.096	0.309	6.05	6.5	6.85	7.
00400	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	09/20/67-06/14/79	10	0.316	0.326	1.	0.1	0.065	0.255	0.1	0.144	0.316	0.932
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	10	98.	95.	122.	65.	386.222	19.653	66.	77.25	115.	121.6

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1974 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	10	28.	32.4	60.	9.	355.822	18.863	9.6	16.5	49.75	59.8
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	10	63.5	62.6	97.	30.	408.933	20.222	31.1	46.25	75.25	95.8
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	6.	8.8	32.	0.	97.289	9.864	0.2	2.	12.	30.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	10	1.5	4.6	26.	0.	62.044	7.877	0.	0.	6.	24.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	3.	4.	12.	0.	17.556	4.19	0.	0.	6.75	11.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.05	0.055	0.1	0.05	0.	0.016	0.05	0.05	0.05	0.095
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	10	0.165	0.213	0.7	0.01	0.042	0.204	0.015	0.068	0.333	0.664
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	0.7	0.65	1.	0.4	0.032	0.178	0.41	0.5	0.725	0.98
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	10 ##	75.	95.	200.	50.	3583.333	59.861	50.	50.	125.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	10 ##	1.849	1.91	2.301	1.699	0.061	0.248	1.699	1.699	2.075	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =		81.225									
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	10 ##	0.075	0.085	0.2	0.05	0.002	0.047	0.05	0.05	0.1	0.19
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1975 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	12	16.1	16.108	27.2	1.1	76.386	8.74	2.09	8.625	25.025	26.72
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	12	5.4	5.867	12.	1.	15.45	3.931	1.18	2.5	8.75	12.
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	12	6.5	6.508	7.	5.5	0.141	0.375	5.77	6.5	6.65	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	12	6.5	6.289	7.	5.5	0.193	0.44	5.77	6.5	6.65	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	12	0.316	0.514	3.162	0.1	0.704	0.839	0.1	0.229	0.316	2.333
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	11	113.	112.636	175.	70.	1078.055	32.834	70.6	85.	140.	170.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	11	54.	55.545	119.	2.	871.873	29.527	8.6	38.	72.	111.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	11	56.	57.091	108.	27.	720.091	26.835	27.4	35.	68.	106.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	8.	24.091	78.	2.	778.891	27.909	2.	6.	38.	77.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	11	2.	4.364	14.	0.	21.455	4.632	0.	0.	8.	13.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	11	7.	19.909	74.	0.	667.291	25.832	0.4	2.	38.	71.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	11 ##	0.05	0.059	0.1	0.05	0.	0.02	0.05	0.05	0.05	0.1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	11 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	11	0.12	0.14	0.4	0.025	0.017	0.131	0.025	0.025	0.18	0.394
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	11	0.6	0.654	1.399	0.3	0.115	0.338	0.3	0.4	0.9	1.319
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	12 ##	50.	220.833	2000.	50.	314299.242	560.624	50.	50.	87.5	1430.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	12 ##	1.699	1.883	3.301	1.699	0.213	0.462	1.699	1.699	1.925	2.911
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =		76.321									
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	11 ##	0.05	0.109	0.3	0.05	0.007	0.086	0.05	0.05	0.2	0.28
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	11	0.05	0.053	0.08	0.04	0.	0.012	0.04	0.05	0.05	0.078

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1976 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	10	17.8	16.83	24.4	6.1	36.333	6.028	6.43	11.5	21.525	24.24
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	10	5.65	6.	11.	1.1	10.438	3.231	1.23	3.45	8.95	10.84
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	10	6.5	6.58	7.2	6.	0.14	0.374	6.03	6.3	7.	7.18
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	10	6.5	6.452	7.2	6.	0.158	0.397	6.03	6.3	7.	7.18
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	10	0.316	0.353	1.	0.063	0.076	0.275	0.067	0.1	0.501	0.95
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	10	108.5	118.1	179.	83.	1104.544	33.235	83.5	91.75	140.5	178.3
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	10	58.	61.6	90.	44.	269.156	16.406	44.1	46.5	74.75	89.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	10	55.5	56.5	99.	20.	694.278	26.349	20.7	33.	82.75	97.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	4.	5.4	12.	0.5	20.656	4.545	0.5	1.625	10.25	11.9

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### Annual Analysis for 1976 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	9	4.	4.278	10.	0.	11.944	3.456	0.	1.25	7.	10.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	1.25	1.6	5.	0.	3.1	1.761	0.	0.	2.5	4.9
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.05	0.05	0.05	0.	0.05	0.	0.05	0.05	0.05	0.05
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.005	0.013	0.07	0.005	0.	0.02	0.005	0.005	0.01	0.064
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	10	0.12	0.123	0.34	0.025	0.01	0.102	0.025	0.025	0.165	0.33
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	0.5	0.54	1.	0.2	0.069	0.263	0.21	0.3	0.8	0.98
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	10	100.	275.	1700.	50.	254583.333	504.563	50.	50.	200.	1550.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	10	2.	2.123	3.23	1.699	0.212	0.46	1.699	1.699	2.301	3.138
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	132.753							
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	9	0.1	0.089	0.2	0.05	0.002	0.049	0.05	0.05	0.1	0.2
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	9	0.06	0.051	0.08	0.01	0.	0.021	0.01	0.035	0.065	0.08

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1977 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	8	14.75	15.35	29.	0.8	62.166	7.885	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	8	4.6	5.65	10.8	0.8	11.791	3.434	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	8	6.5	6.738	8.	6.	0.443	0.665	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	8	6.5	6.465	8.	6.	0.528	0.726	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	8	0.316	0.343	1.	0.01	0.096	0.311	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	8	114.	118.375	163.	85.	592.554	24.342	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	8	46.	48.625	80.	26.	242.839	15.583	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	8	64.5	69.75	116.	41.	517.929	22.758	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	8	5.5	6.313	15.	0.5	25.924	5.092	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	8	3.	3.688	8.	0.5	6.924	2.631	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	8	2.25	2.688	7.	0.	8.21	2.865	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	8 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	8 ##	0.008	0.019	0.1	0.005	0.001	0.033	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	4 ##	0.043	0.065	0.17	0.005	0.005	0.074	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	7	0.5	1.671	8.699	0.3	9.613	3.101	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	8 ##	50.	362.5	2300.	50.	620535.714	787.741	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	8 ##	1.699	2.004	3.362	1.699	0.375	0.612	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =	100.945							
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	8 ##	0.05	0.069	0.1	0.05	0.001	0.026	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	8	0.05	0.047	0.1	0.005	0.001	0.03	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	11	11.5	13.827	29.	0.	103.678	10.182	0.42	6.	25.	28.8
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	11	4.1	6.164	13.4	2.8	12.091	3.477	2.92	3.5	8.7	12.88
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.4	6.436	7.	6.	0.135	0.367	6.	6.1	6.8	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	11	6.4	6.316	7.	6.	0.151	0.388	6.	6.1	6.8	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	11	0.398	0.483	1.	0.1	0.112	0.334	0.1	0.158	0.794	1.
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	10	96.	104.9	164.	65.	1040.989	32.264	65.1	81.75	135.75	161.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	10	40.	38.	48.	22.	68.222	8.26	22.6	31.75	44.25	47.7
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	10	55.5	66.9	124.	37.	893.433	29.89	37.2	42.75	94.5	122.1
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	10	4.5	4.1	10.	0.5	12.433	3.526	0.5	0.5	7.25	9.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	10	2.	2.5	8.	0.5	5.944	2.438	0.5	0.5	3.5	7.7
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	9	2.	1.944	5.	0.	3.09	1.758	0.	0.5	3.5	5.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.05	0.06	0.1	0.05	0.	0.021	0.05	0.05	0.063	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1978 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	10 ##	0.005	0.007	0.01	0.005	0.	0.003	0.005	0.005	0.01	0.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	10	0.4	0.45	0.7	0.2	0.023	0.151	0.22	0.4	0.55	0.7
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	10	100.	110.	200.	50.	4333.333	65.828	50.	50.	200.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	10	2.	1.97	2.301	1.699	0.069	0.264	1.699	1.699	2.301	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =		93.303						
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	10 ##	0.05	0.07	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	10	0.04	0.043	0.12	0.005	0.001	0.03	0.007	0.028	0.05	0.113

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1979 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	3	21.	16.	21.	6.	75.	8.66	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	4	8.7	8.875	10.	8.1	0.703	0.838	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	4	6.45	6.5	7.	6.1	0.14	0.374	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	4	6.447	6.396	7.	6.1	0.155	0.393	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	4	0.357	0.402	0.794	0.1	0.084	0.29	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	4	82.	84.	110.	62.	456.	21.354	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	4	34.5	33.	40.	23.	64.667	8.042	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	4	50.5	51.	71.	32.	255.333	15.979	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	4 ##	1.75	2.25	5.	0.5	4.75	2.179	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	4 ##	1.75	2.25	5.	0.5	4.75	2.179	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	4 ##	0.25	0.25	0.5	0.	0.083	0.289	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	4 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	4 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	4	0.45	0.425	0.5	0.3	0.009	0.096	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	3 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	3 ##	1.699	1.699	1.699	1.699	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				GEOMETRIC MEAN =		50.						
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	4 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	4	0.04	0.043	0.07	0.02	0.	0.021	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	34	23.3	23.244	30.	13.3	19.7	4.438	15.3	21.1	27.2	28.95
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	32	4.1	3.975	7.2	0.8	2.73	1.652	1.25	2.85	5.	6.28
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-09/09/75	14	2.7	2.607	5.	1.	0.97	0.985	1.1	2.	3.	4.3
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	33	6.5	6.388	7.6	2.	0.72	0.849	6.	6.3	6.7	6.86
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	33	6.5	3.518	7.6	2.	9.214	3.035	6.	6.3	6.7	6.86
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	33	0.316	303.393	10000.	0.025	3030076.149	1740.711	0.139	0.2	0.501	1.
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	28	138.5	139.571	206.	52.	1331.81	36.494	98.6	112.5	166.	196.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	30	51.5	56.5	137.	17.	616.466	24.829	23.2	43.5	73.25	88.6
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	27	81.	84.556	153.	19.	845.026	29.069	50.2	67.	99.	124.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	27	10.	16.852	102.	2.	508.054	22.54	3.6	5.	17.	39.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	30	5.5	6.333	44.	0.	59.264	7.698	1.1	3.	8.	9.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	27	5.	10.37	74.	0.	294.396	17.158	0.8	2.	8.	30.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	28 ##	0.05	0.082	0.44	0.01	0.008	0.088	0.028	0.05	0.093	0.205
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	28 ##	0.005	0.012	0.11	0.005	0.	0.02	0.005	0.005	0.01	0.021
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	24	0.06	0.083	0.34	0.005	0.006	0.079	0.01	0.025	0.11	0.205
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	28	0.65	1.117	8.699	0.2	2.594	1.61	0.39	0.4	1.	2.332
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	24	100.	210.417	1700.	50.	122604.167	350.149	50.	50.	200.	550.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	24	2.	2.069	3.23	1.699	0.169	0.411	1.699	1.699	2.301	2.724
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			117.147								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	25	0.1	0.124	0.3	0.05	0.005	0.069	0.05	0.1	0.15	0.24
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	25	0.07	0.148	2.	0.02	0.15	0.387	0.03	0.05	0.1	0.124

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	42	7.5	8.074	17.8	0.	19.904	4.461	1.85	5.6	11.5	15.24
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	42	10.	9.086	13.4	3.2	8.091	2.845	3.89	7.75	11.	12.28
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-09/09/75	2	2.45	2.45	2.7	2.2	0.125	0.354	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	42	6.5	6.555	7.5	5.8	0.127	0.356	6.	6.375	6.8	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	42	6.5	6.414	7.5	5.8	0.147	0.384	6.	6.375	6.8	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	42	0.316	0.385	1.585	0.032	0.115	0.34	0.1	0.158	0.424	1.
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	41	100.	121.244	989.	1.	20139.039	141.912	73.8	83.5	114.5	148.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	41	41.	43.951	108.	2.	470.048	21.681	15.2	33.	60.	73.
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	40	57.5	79.875	881.	12.	17468.112	132.167	27.8	44.75	72.75	104.1
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	40	4.5	6.975	38.	0.	53.884	7.341	0.5	2.	9.75	17.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	40	2.	3.288	20.	0.	14.409	3.796	0.	0.625	4.75	8.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	39	2.	3.962	38.	0.	44.821	6.695	0.	0.5	5.	9.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	40 ##	0.05	0.093	1.	0.005	0.028	0.166	0.02	0.05	0.058	0.155
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	40	0.01	0.01	0.1	0.1	0.005	0.	0.015	0.005	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	32	0.17	0.231	1.189	0.005	0.053	0.231	0.02	0.113	0.32	0.404
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	40	0.5	0.513	1.399	0.2	0.055	0.235	0.3	0.3	0.675	0.795
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	38 ##	50.	496.053	7100.	50.	1941673.186	1393.439	50.	50.	125.	2030.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	11/23/70-04/24/79	38 ##	1.699	2.036	3.851	1.699	0.326	0.571	1.699	1.699	2.075	3.307
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			108.592								
70505	PHOSPHATE, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	02/09/70-06/14/79	39 ##	0.05	0.083	0.3	0.05	0.003	0.057	0.05	0.05	0.1	0.2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	39	0.05	0.057	0.25	0.005	0.002	0.049	0.01	0.03	0.06	0.1

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0143

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/20/67-06/14/79	32	18.9	17.884	25.6	2.1	29.208	5.404	10.18	14.7	21.1	24.49
00300	OXYGEN, DISSOLVED MG/L	10/12/67-06/14/79	33	7.2	7.091	11.2	2.4	5.348	2.313	3.56	5.65	9.	10.
00310	BOD, 5 DAY, 20 DEG C MG/L	10/12/67-09/07/75	5	2.3	2.38	2.8	2.	0.102	0.319	**	**	**	**
00400	PH (STANDARD UNITS)	09/20/67-06/14/79	33	6.5	6.561	8.	5.5	0.164	0.405	6.14	6.45	6.7	7.
00400	CONVERTED PH (STANDARD UNITS)	09/20/67-06/14/79	33	6.5	6.39	8.	5.5	0.195	0.441	6.14	6.45	6.7	7.
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/20/67-06/14/79	33	0.316	0.408	3.162	0.01	0.28	0.53	0.1	0.2	0.357	0.729
00500	RESIDUE, TOTAL (MG/L)	10/07/68-06/14/79	32	94.5	101.313	192.	62.	1050.48	32.411	65.3	75.	113.	162.4
00505	RESIDUE, TOTAL VOLATILE (MG/L)	09/20/67-06/14/79	32	41.5	41.406	119.	8.	419.991	20.494	15.	28.5	48.75	59.7
00510	RESIDUE, TOTAL FIXED (MG/L)	04/17/69-06/14/79	32	54.	59.906	168.	27.	896.733	29.945	30.6	41.	67.25	107.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/17/69-06/14/79	32	7.	11.609	74.	0.5	271.996	16.492	0.65	2.	11.75	29.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	09/20/67-06/14/79	32	3.	4.922	26.	0.	33.47	5.785	0.5	1.25	6.	12.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	04/17/69-06/14/79	30	2.5	7.183	60.	0.	169.06	13.002	0.	0.5	6.5	21.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/07/68-06/14/79	32 ##	0.05	0.1	0.7	0.02	0.016	0.128	0.043	0.05	0.098	0.241
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/14/79	32 ##	0.005	0.009	0.07	0.005	0.	0.012	0.005	0.005	0.01	0.01
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/07/68-06/08/77	26	0.11	0.145	0.4	0.005	0.012	0.112	0.025	0.06	0.203	0.349
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/07/68-06/14/79	31	0.7	0.773	3.	0.27	0.251	0.501	0.4	0.5	0.9	1.319
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	25 ##	50.	96.	300.	50.	4775.	69.101	50.	50.	100.	200.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	11/23/70-04/24/79	25 ##	1.699	1.899	2.477	1.699	0.067	0.258	1.699	1.699	2.	2.301
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	79.19								
70505	PHOSPHATE, TOTAL, COLORIMETRIC MÉTHOD (MG/L AS P)	02/09/70-06/14/79	31 ##	0.05	0.079	0.2	0.05	0.002	0.042	0.05	0.05	0.1	0.14
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	02/09/70-06/14/79	31	0.06	0.072	0.15	0.02	0.001	0.031	0.042	0.05	0.1	0.116

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0144

NPS Station ID: RICH0144 LAT/LON: 37.611392/ -77.406670  
 Location: CHICKAHOMINY RIVER AT RT 627 NEAR RICHMOND, VA  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206 Depth of Water: 0  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080206 RF1 Mile Point: 0.0000  
 RF3 Index: 02080206003300.00 RF3 Mile Point: 0.68  
 Description:

Agency: 112WRD  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 02042288  
 Within Park Boundary: No

Date Created: 12/22/84

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 5.70  
 Distance from RF3: 0.03

On/Off RF1:  
 On/Off RF3:

### Parameter Inventory for Station: RICH0144

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-09/12/89	10	21.	19.33	25.	10.	29.833	5.462	10.2	13.5	23.7	24.93
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-09/12/89	8	23.5	21.375	27.5	10.	49.554	7.039	**	**	**	**
00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/12/89	6	753.	753.667	762.	749.	21.467	4.633	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-09/12/89	10	9.	18.703	59.	0.	468.574	21.647	0.003	1.506	43.	57.4
00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/12/89	6	90.5	91.	140.	55.	1156.	34.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/10/84-09/12/89	10	161.5	160.8	200.	120.	822.4	28.678	121.2	138.	185.	198.5
00300	OXYGEN, DISSOLVED MG/L	04/08/87-09/12/89	6	3.7	4.733	9.4	1.5	10.615	3.258	**	**	**	**
00400	PH (STANDARD UNITS)	04/08/87-09/12/89	6	6.5	6.5	6.8	6.2	0.052	0.228	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	04/08/87-09/12/89	6	6.5	6.451	6.8	6.2	0.055	0.234	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/12/89	6	0.316	0.354	0.631	0.158	0.033	0.181	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/08/87-09/12/89	6	6.85	6.95	7.6	6.6	0.119	0.345	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/08/87-09/12/89	6	6.847	6.865	7.6	6.6	0.128	0.357	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/12/89	6	0.142	0.137	0.251	0.025	0.006	0.075	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	09/10/84-09/12/89	7	0.05	0.061	0.2	0.005	0.004	0.064	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/10/84-09/12/89	7	0.7	0.657	0.8	0.5	0.01	0.098	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	09/10/84-09/12/89	7	0.05	0.052	0.1	0.005	0.001	0.033	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/10/84-09/12/89	7	0.07	0.067	0.11	0.037	0.001	0.025	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	6	0.026	0.035	0.076	0.014	0.001	0.024	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	09/10/84-09/12/89	7	0.014	0.019	0.04	0.01	0.	0.011	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	09/10/84-09/12/89	7	11.	11.414	17.	7.5	9.268	3.044	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	6	8.55	8.8	12.	6.3	6.284	2.507	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	6	2.	2.05	2.5	1.6	0.163	0.404	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	6	14.	13.667	15.	10.	3.467	1.862	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	6	2.5	2.467	3.4	1.6	0.343	0.585	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/12/89	6	18.	17.5	20.	13.	5.9	2.429	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/12/89	6	12.5	13.333	20.	6.	33.467	5.785	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-09/12/89	6	0.15	0.15	0.2	0.1	0.003	0.055	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SiO2)	04/08/87-09/12/89	6	7.55	7.65	14.	2.2	27.655	5.259	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/12/89	4	1.	0.875	1.	0.5	0.063	0.25	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	2##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/12/89	4##	0.5	0.625	1.	0.5	0.063	0.25	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/12/89	4##	0.75	1.	2.	0.5	0.5	0.707	**	**	**	**
01037	COBALT, TOTAL (UG/L AS CO)	04/12/88-09/12/89	4##	0.5	1.125	3.	0.5	1.563	1.25	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	2	1.	1.	1.	1.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/12/88-09/12/89	4	3.	4.25	9.	2.	10.25	3.202	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/08/87-09/12/89	6	2200.	2265.	4000.	890.	1356150.	1164.539	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/12/89	6	1045.	1190.	2300.	470.	412560.	642.308	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	2##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0144

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01051	LEAD, TOTAL (UG/L AS PB)	04/12/88-09/12/89	4 ##	2.5	2.125	2.5	1.	0.563	0.75	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/12/89	6	400.	628.333	1500.	60.	412736.667	642.446	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-04/04/89	4	115.	445.5	1500.	52.	495107.667	703.639	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/12/89	4	3.	2.875	5.	0.5	6.063	2.462	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	2	48.	48.	62.	34.	392.	19.799	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/12/89	4	30.	31.25	60.	5.	506.25	22.5	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	04/12/88-09/12/89	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	4	88.5	84.75	97.	65.	189.583	13.769	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/12/89	4 ##	0.05	0.063	0.1	0.05	0.001	0.025	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/12/89	4	10.	9.5	11.	7.	3.	1.732	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0144

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	6	3	0.50	3	3	1.00				3	0	0.00			
00400	PH	Fresh Chronic	9.	6	0	0.00	3	0	0.00				3	0	0.00			
00403	PH, LAB	Other-Lo Lim.	6.5	6	4	0.67	3	3	1.00				3	1	0.33			
		Fresh Chronic	9.	6	0	0.00	3	0	0.00				3	0	0.00			
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	7	0	0.00	4	0	0.00				3	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	6	0	0.00	3	0	0.00				3	0	0.00			
		Drinking Water	250.	6	0	0.00	3	0	0.00				3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	6	0	0.00	3	0	0.00				3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	6	0	0.00	3	0	0.00				3	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	50.	4	0	0.00	2	0	0.00				2	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	5.	2	0	0.00	1	0	0.00				1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	5.	4	0	0.00	2	0	0.00				2	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	4	0	0.00	2	0	0.00				2	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	1300.	2	0	0.00	1	0	0.00				1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	1300.	4	0	0.00	2	0	0.00				2	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	15.	2	0	0.00	1	0	0.00				1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	15.	4	0	0.00	2	0	0.00				2	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	100.	4	0	0.00	2	0	0.00				2	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	5000.	2	0	0.00	1	0	0.00				1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	5000.	4	0	0.00	2	0	0.00				2	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	50.	4	0	0.00	2	0	0.00				2	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	2.	2	0	0.00	1	0	0.00				1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	4	0	0.00	2	0	0.00				2	0	0.00			
		Drinking Water	2.	4	0	0.00	2	0	0.00				2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0145

NPS Station ID: RICH0145  
 Location: UPHAM BROOK NEAR RICHMOND, VA  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080206  
 RF3 Index: 02080206161800.00  
 Description:

LAT/LON: 37.613059/ -77.424448

Agency: 112WRD  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 02042426  
 Within Park Boundary: No

Date Created: 01/09/88

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 3.90  
 Distance from RF3: 0.07

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0145

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/08/87-09/04/91	20	17.3	17.91	26.5	8.7	27.015	5.198	9.97	12.8	22.125	24.13
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	04/12/88-09/04/91	21	21.5	21.1	30.	7.	43.296	6.58	8.9	17.3	25.25	29.8
00025	BAROMETRIC PRESSURE (MM OF HG)	04/08/87-09/04/91	23	755.	756.	764.	747.	18.545	4.306	750.4	754.	760.	761.6
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/08/87-09/04/91	27	23.	168.737	1260.	0.4	110912.975	333.036	1.4	8.	76.	841.4
00065	STAGE, STREAM (FEET)	06/11/91-06/11/91	1	4.53	4.53	4.53	4.53	0.	0.	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	04/08/87-09/04/91	26	58.5	63.385	150.	12.	1183.766	34.406	19.9	30.	85.5	110.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/08/87-09/04/91	28	180.	163.143	255.	55.	3848.868	62.039	78.	102.75	219.5	226.5
00300	OXYGEN, DISSOLVED MG/L	04/08/87-09/04/91	20	6.6	6.535	10.7	3.	5.114	2.261	3.62	4.175	8.6	9.56
00400	PH (STANDARD UNITS)	04/08/87-09/04/91	26	6.7	6.848	8.7	6.2	0.343	0.586	6.27	6.575	6.925	7.733
00400	CONVERTED PH (STANDARD UNITS)	04/08/87-09/04/91	26	6.7	6.639	8.7	6.2	0.388	0.623	6.27	6.575	6.925	7.733
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-09/04/91	26	0.2	0.23	0.631	0.002	0.031	0.176	0.024	0.119	0.267	0.54
00403	PH, LAB, STANDARD UNITS SU	04/08/87-10/31/89	7	7.3	7.343	7.8	6.9	0.083	0.288	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/08/87-10/31/89	7	7.3	7.265	7.8	6.9	0.09	0.3	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/08/87-10/31/89	7	0.05	0.054	0.126	0.016	0.001	0.036	**	**	**	**
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	06/11/91-06/11/91	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00453	BICARBONATE,WATER,DISS,INCR TIT, FIELD, AS HCO3, MG/L	06/11/91-06/11/91	1	36.	36.	36.	36.	0.	0.	**	**	**	**
00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC,MG/L	10/31/89-09/04/91	16 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	04/08/87-09/12/89	6	0.09	0.098	0.17	0.05	0.002	0.045	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/31/89-09/04/91	20	0.121	0.143	0.605	0.001	0.017	0.13	0.009	0.069	0.17	0.288
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/08/87-09/04/91	26	0.75	0.777	1.4	0.4	0.074	0.272	0.47	0.5	0.925	1.19
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/31/89-09/04/91	20	0.425	0.598	2.4	0.25	0.228	0.478	0.262	0.348	0.68	1.08
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	04/08/87-09/12/89	6	0.55	0.484	0.7	0.005	0.061	0.246	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/08/87-09/04/91	26	0.099	0.098	0.193	0.036	0.002	0.04	0.051	0.062	0.116	0.161
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/08/87-09/12/89	6	0.035	0.034	0.067	0.001	0.001	0.024	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/08/87-09/12/89	6	0.024	0.024	0.05	0.001	0.	0.017	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	04/08/87-09/04/91	26	8.7	9.019	19.	4.5	10.43	3.23	4.84	7.375	9.725	13.6
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	10/31/89-09/15/90	13 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/08/87-09/12/89	6	11.5	12.333	16.	10.	6.667	2.582	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/08/87-09/12/89	6	2.5	2.517	3.3	1.9	0.282	0.531	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/08/87-09/12/89	6	21.	19.667	28.	11.	50.667	7.118	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/08/87-09/12/89	6	2.7	2.917	4.3	2.3	0.502	0.708	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	04/08/87-09/04/91	26	25.	23.5	41.	7.	125.94	11.222	7.7	13.	34.25	38.2
00945	SULFATE, TOTAL (MG/L AS SO4)	04/08/87-09/04/91	26	12.	12.5	22.	6.	15.22	3.901	8.	9.	15.	17.3
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/08/87-02/05/91	7	0.2	0.171	0.2	0.1	0.002	0.049	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SiO2)	04/08/87-09/12/89	6	8.7	8.783	11.	6.	4.534	2.129	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	04/12/88-09/04/91	24	2.	1.979	5.	0.5	0.902	0.95	0.5	2.	2.	3.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	04/08/87-09/14/87	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/12/88-09/04/91	24 ##	0.5	1.354	10.	0.5	4.532	2.129	0.5	0.5	1.	4.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0145

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01030 CHROMIUM, DISSOLVED (UG/L AS CR)	04/08/87-04/08/87	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	04/12/88-09/04/91	24	2.	2.771	19.	0.5	14.108	3.756	0.5	0.5	3.75	5.
01037 COBALT, TOTAL (UG/L AS CO)	04/12/88-10/31/89	5 ##	0.5	1.3	4.	0.5	2.325	1.525	**	**	**	**
01040 COPPER, DISSOLVED (UG/L AS CU)	04/08/87-09/14/87	2	4.	4.	4.	4.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	04/12/88-09/04/91	24	6.	6.25	12.	2.	6.022	2.454	3.	5.	7.75	10.
01045 IRON, TOTAL (UG/L AS FE)	04/08/87-09/04/91	26	2100.	2419.615	8500.	750.	2607443.846	1614.758	1058.	1300.	2775.	4310.
01046 IRON, DISSOLVED (UG/L AS FE)	04/08/87-09/04/91	26	585.	995.	8300.	120.	2353442.	1534.093	338.	435.	1075.	1360.
01049 LEAD, DISSOLVED (UG/L AS PB)	04/08/87-09/14/87	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051 LEAD, TOTAL (UG/L AS PB)	04/12/88-09/04/91	24	9.	9.938	27.	2.5	43.724	6.612	2.5	4.	13.75	19.5
01055 MANGANESE, TOTAL (UG/L AS MN)	04/08/87-09/04/91	26	110.	156.538	640.	50.	18407.538	135.674	64.	80.	172.5	360.
01056 MANGANESE, DISSOLVED (UG/L AS MN)	04/08/87-09/04/91	22	86.5	85.727	170.	5.	1776.017	42.143	40.	50.	120.	148.
01067 NICKEL, TOTAL (UG/L AS NI)	04/12/88-09/04/91	23	2.	2.5	6.	0.5	1.341	1.158	1.	2.	3.	4.
01090 ZINC, DISSOLVED (UG/L AS ZN)	04/08/87-09/14/87	2	22.5	22.5	28.	17.	60.5	7.778	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	04/12/88-09/04/91	24	30.	34.792	90.	5.	487.998	22.091	5.	20.	47.5	70.
01147 SELENIUM, TOTAL (UG/L AS SE)	04/12/88-01/25/90	6 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32209 CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	10/31/89-01/25/90	2	4.7	4.7	8.8	0.6	33.62	5.798	**	**	**	**
32213 PHEOPHYTIN-A,FLUORIMETRIC METHOD (UG/L)	10/31/89-01/25/90	2	3.7	3.7	6.4	1.	14.58	3.818	**	**	**	**
32730 PHENOLICS, TOTAL, RECOVERABLE (UG/L)	10/31/89-07/26/91	17 ##	0.5	1.118	5.	0.5	1.548	1.244	0.5	0.5	1.5	3.4
39086 ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3, MG/L	06/11/91-06/11/91	1	30.	30.	30.	30.	0.	0.	**	**	**	**
70331 SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	04/12/88-09/12/89	4	80.5	74.5	98.	39.	809.667	28.455	**	**	**	**
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/31/89-09/04/91	22	0.064	0.07	0.129	0.033	0.001	0.032	0.033	0.043	0.103	0.121
71890 MERCURY, DISSOLVED (UG/L AS HG)	04/08/87-09/14/87	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71900 MERCURY, TOTAL (UG/L AS HG)	04/12/88-09/04/91	24 ##	0.05	0.075	0.5	0.05	0.008	0.092	0.05	0.05	0.05	0.1
80154 SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	04/12/88-09/04/91	25	43.	89.76	871.	7.	29263.273	171.065	8.2	16.	101.	187.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0145

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	5	0.25	7	4	0.57	3	0	0.00	10	1	0.10			
00400 PH	Fresh Chronic	9.	26	0	0.00	10	0	0.00	3	0	0.00	13	0	0.00			
00403 PH, LAB	Other-Lo Lim.	6.5	26	6	0.23	10	1	0.10	3	0	0.00	13	5	0.38			
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	20	0	0.00	7	0	0.00	3	0	0.00	10	0	0.00			
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	6	0	0.00	3	0	0.00				3	0	0.00			
00720 CYANIDE, TOTAL	Fresh Acute	0.022	13	0	0.00	3	0	0.00	2	0	0.00	8	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Drinking Water	0.2	13	0	0.00	3	0	0.00	2	0	0.00	8	0	0.00			
00945 SULFATE, TOTAL (AS SO4)	Fresh Acute	860.	26	0	0.00	8	0	0.00	3	0	0.00	15	0	0.00			
00950 FLUORIDE, DISSOLVED AS F	Drinking Water	250.	26	0	0.00	8	0	0.00	3	0	0.00	15	0	0.00			
01002 ARSENIC, TOTAL	Fresh Acute	360.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
01025 CADMIUM, DISSOLVED	Drinking Water	50.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
	Fresh Acute	3.9	2	0	0.00	1	0	0.00				1	0	0.00			
01027 CADMIUM, TOTAL	Drinking Water	5.	2	0	0.00	1	0	0.00				1	0	0.00			
	Fresh Acute	3.9	24	2	0.08	7	2	0.29	3	0	0.00	14	0	0.00			
01030 CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00							1	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
01040 COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	1	0	0.00				1	0	0.00			
	Drinking Water	1300.	2	0	0.00	1	0	0.00				1	0	0.00			
01042 COPPER, TOTAL	Fresh Acute	18.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
	Drinking Water	1300.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
01049 LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	1	0	0.00				1	0	0.00			
	Drinking Water	15.	2	0	0.00	1	0	0.00				1	0	0.00			
01051 LEAD, TOTAL	Fresh Acute	82.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
	Drinking Water	15.	24	5	0.21	7	1	0.14	3	0	0.00	14	4	0.29			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0145

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01067 NICKEL, TOTAL	Fresh Acute	1400.	23	0	0.00	6	0	0.00	3	0	0.00	14	0	0.00			
	Drinking Water	100.	23	0	0.00	6	0	0.00	3	0	0.00	14	0	0.00			
01090 ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	1	0	0.00				1	0	0.00			
	Drinking Water	5000.	2	0	0.00	1	0	0.00				1	0	0.00			
01092 ZINC, TOTAL	Fresh Acute	120.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
	Drinking Water	5000.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
01147 SELENIUM, TOTAL	Fresh Acute	20.	6	0	0.00	2	0	0.00	2	0	0.00	2	0	0.00			
	Drinking Water	50.	6	0	0.00	2	0	0.00	2	0	0.00	2	0	0.00			
71890 MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	1	0	0.00				1	0	0.00			
	Drinking Water	2.	2	0	0.00	1	0	0.00				1	0	0.00			
71900 MERCURY, TOTAL	Fresh Acute	2.4	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			
	Drinking Water	2.	24	0	0.00	7	0	0.00	3	0	0.00	14	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0146

NPS Station ID: RICH0146  
 Location: RT. 1 BRIDGE (BROOK ROAD)  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin: 02-NORTH ATLANTIC  
 Minor Basin: 2-JAMES  
 RF1 Index: 02080206033  
 RF3 Index: 02080205000107.44  
 Description:  
 VIRGINIA STATE WATER CONTROL BOARD AMBIENT MONITORING BASIN: 2 JAMES REGION: 4 PIEDMONT  
 RIVER: UPHAM BROOK SECTION: 05 TOPO MAP #: 0131 TOPO MAP NAME: RICHMOND, VA

LAT/LON: 37.615281/ -77.440560

Agency: 21VASWCB  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 2-UPM003.53 /VA2-05-X0245/VA2-4X0245  
 Within Park Boundary: No

Date Created: / /

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 1.980  
 RF3 Mile Point: 8.67

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 0.00  
 Distance from RF3: 0.06

On/Off RF1: OFF  
 On/Off RF3:

### Parameter Inventory for Station: RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th	
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	231	15.5	15.197	28.	0.	54.799	7.403	5.42	8.5	22.	25.
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/19/82-04/03/85	6	10.5	12.667	25.	3.	64.267	8.017	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	01/25/89-06/05/91	22	11.55	20.236	110.	4.7	587.289	24.234	5.06	6.875	17.85	52.9
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/11/94-12/07/98	54	8.3	11.587	52.	1.7	104.895	10.242	3.45	4.7	16.	23.5
00080	COLOR (PLATINUM-COBALT UNITS)	03/13/91-03/03/93	8	66.	84.5	243.	43.	4255.429	65.234	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	148	216.	239.236	2055.	80.	29812.957	172.664	136.8	171.25	258.75	318.2
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	75	200.	214.813	1138.	75.	15722.83	125.391	116.6	164.	234.	281.8
00096	SALINITY AT 25 DEGREES C (MG/M/L)	07/26/95-08/31/95	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	69	7.9	8.346	13.1	4.	6.275	2.505	5.1	6.25	10.8	12.
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	165	8.6	8.553	14.	3.2	5.808	2.41	5.52	6.55	10.6	11.8
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	176	2.	2.298	9.	0.5	2.009	1.417	1.	1.	3.	4.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	181	19.	20.42	87.	3.	78.556	8.863	12.	15.	24.	30.
00400	PH (STANDARD UNITS)	02/10/75-12/07/98	233	6.81	6.922	9.23	5.45	0.287	0.536	6.358	6.6	7.2	7.6
00400	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	233	6.81	6.634	9.23	5.45	0.371	0.609	6.358	6.6	7.2	7.6
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	233	0.155	0.232	3.548	0.001	0.158	0.397	0.025	0.063	0.251	0.44
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	90	6.8	6.788	7.8	1.	0.455	0.674	6.5	6.6	7.	7.2
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	90	6.8	2.954	7.8	1.	15.316	3.914	6.5	6.6	7.	7.2
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	90	0.158	1111.275	100000.	0.016111110741.716	10540.908	0.063	0.1	0.251	0.316	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	89	29.	29.551	54.	13.	86.909	9.323	19.	22.5	36.5	41.
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	107	143.	159.037	1090.	64.	11367.753	106.62	106.6	126.	157.	197.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	107	37.	44.879	900.	14.	7119.693	84.378	22.8	28.	43.	52.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	107	109.	122.299	1070.	44.	11509.815	107.284	68.	88.	126.	147.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	186	6.	12.753	344.	0.5	887.433	29.79	2.35	3.	10.25	26.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	186	2.5	3.68	46.	0.	20.461	4.523	1.	1.5	5.	7.3
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	185	3.	9.454	298.	0.	665.722	25.802	1.	2.	8.	18.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	222	0.1	0.119	1.	0.02	0.013	0.115	0.043	0.05	0.14	0.237
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	223	0.02	0.027	0.98	0.005	0.005	0.067	0.005	0.01	0.03	0.04
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	206	0.71	1.106	43.	0.02	16.954	4.118	0.34	0.49	0.88	1.086
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	220	0.6	0.631	1.7	0.1	0.062	0.249	0.4	0.5	0.7	0.99
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/17/77-06/14/79	17	0.5	0.532	0.9	0.21	0.042	0.204	0.266	0.365	0.65	0.892
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	178	0.09	0.091	0.3	0.02	0.002	0.05	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	113	0.04	0.051	0.26	0.01	0.001	0.035	0.02	0.03	0.055	0.092
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	149	8.	8.602	27.	0.	14.712	3.836	4.8	6.25	10.	12.4

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00900 HARDNESS, TOTAL (MG/L AS CACO3)	01/25/89-12/07/98	87	50.	49.172	94.	4.	223.865	14.962	30.	41.	58.	67.2
00927 MAGNESIUM, TOTAL (MG/L AS MG)	09/02/92-03/03/93	3	3110.	3010.	3220.	2700.	75100.	274.044	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	87	27.	37.414	418.	8.	3112.501	55.79	12.	19.	35.	52.4
00945 SULFATE, TOTAL (MG/L AS SO4)	01/25/89-12/07/98	86	15.	14.953	24.	7.	14.304	3.782	10.	12.	17.	21.
00951 FLUORIDE, TOTAL (MG/L AS F)	01/25/89-03/03/93	26	0.185	0.195	0.51	0.05	0.012	0.111	0.05	0.11	0.235	0.368
00955 SILICA, DISSOLVED (MG/L AS SI02)	03/15/89-12/02/92	23	12.2	12.509	20.4	8.5	6.498	2.549	9.48	10.8	13.7	15.76
01002 ARSENIC, TOTAL (UG/L AS AS)	11/13/75-06/01/93	14 ##	5.	3.643	5.	1.	3.016	1.737	1.	1.75	5.	5.
01003 ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/12/81-07/21/92	1	5.2	5.2	5.2	0.	0.	0.	**	**	**	**
01012 BERYLLIUM, TOTAL (UG/L AS BE)	09/02/92-03/03/93	3 ##	5.	5.	5.	0.	0.	0.	**	**	**	**
01027 CADMIUM, TOTAL (UG/L AS CD)	11/13/75-06/01/93	15 ##	5.	4.4	5.	0.5	2.507	1.583	0.5	5.	5.	5.
01028 CADMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	1	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
01029 CHROMIUM, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
01034 CHROMIUM, TOTAL (UG/L AS CR)	03/20/75-06/01/93	17 ##	5.	4.559	5.	0.5	1.621	1.273	1.7	5.	5.	5.
01042 COPPER, TOTAL (UG/L AS CU)	03/20/75-06/01/93	16 ##	5.	6.25	20.	5.	15.	3.873	5.	5.	5.	13.
01043 COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	05/12/81-07/21/92	1	6.4	6.4	6.4	6.4	0.	0.	**	**	**	**
01045 IRON, TOTAL (UG/L AS FE)	11/20/78-06/01/93	9	932.	914.778	1150.	699.	27457.194	165.702	699.	736.	1074.	1150.
01051 LEAD, TOTAL (UG/L AS PB)	03/20/75-06/01/93	17	5.	11.412	30.	4.	72.007	8.486	4.8	5.	19.5	23.6
01052 LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	05/12/81-07/21/92	1	41.6	41.6	41.6	41.6	0.	0.	**	**	**	**
01055 MANGANESE, TOTAL (UG/L AS MN)	11/20/78-06/01/93	9	56.9	61.233	110.	37.8	511.295	22.612	37.8	44.4	74.45	110.
01059 THALLIUM, TOTAL (UG/L AS TL)	09/02/92-03/03/93	3 ##	10.	10.	10.	0.	0.	0.	**	**	**	**
01065 NICKEL, DISSOLVED (UG/L AS NI)	03/20/75-11/20/78	7 ##	50.	43.571	50.	5.	289.286	17.008	**	**	**	**
01067 NICKEL, TOTAL (UG/L AS NI)	06/29/82-06/01/93	10 ##	5.	5.5	10.	5.	2.5	1.581	5.	5.	5.	9.5
01068 NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/12/81-07/21/92	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**
01092 ZINC, TOTAL (UG/L AS ZN)	03/20/75-06/01/93	17	23.	31.765	70.	5.	432.816	20.804	5.	19.5	51.	70.
01093 ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	05/12/81-07/21/92	1	46.8	46.8	46.8	46.8	0.	0.	**	**	**	**
01147 SELENIUM, TOTAL (UG/L AS SE)	03/13/91-06/01/93	8 ##	10.	9.375	10.	5.	3.125	1.768	**	**	**	**
31505 COLIFORM, TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	10/28/77-10/28/77	1	240000.	240000.	240000.	240000.	0.	0.	**	**	**	**
31505 LOG COLIFORM, TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	10/28/77-10/28/77	1	5.38	5.38	5.38	5.38	0.	0.	**	**	**	**
31505 GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	GEOMETRIC MEAN =		240000.									
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	54	1075.	4043.519	16000.	9.	33455318.594	5784.057	120.	267.5	5400.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	54	3.028	3.041	4.204	0.954	0.644	0.803	2.078	2.427	3.732	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =		1099.603									
31616 FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	164	300.	1886.89	110000.	50.	76772664.503	8762.001	50.	100.	1000.	5250.
31616 LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	164	2.477	2.588	5.041	1.699	0.469	0.685	1.699	2.	3.	3.72
31616 GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =		387.092									
32240 TANNIN AND LIGNIN (MG/L)	12/03/91-03/03/93	6	1.	1.233	2.5	0.5	0.611	0.781	**	**	**	**
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE UG/L	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39061 PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	03/06/85-07/21/92	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39062 CHLORDANE-CIS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39065 CHLORDANE-TRNS ISOMER,WHOLE WATER SAMPL (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39068 CHLORDANE-NONACHLOR,CIS ISO,WHOLE WTR (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39071 CHLORDANE-NONACHLOR TPANS ISO,WHOLE WTR (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39300 P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39305 O,P' DDT IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39310 P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39315 O,P'DDD IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39320 P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39327 ORTHO PARA DDE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39330 ALDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-06/29/82	3	0.	0.	0.	0.	0.	0.	**	**	**	**
39333 ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/12/81-07/21/92	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39350 CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39351 CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	03/06/85-07/21/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39363 DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39368 DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39373 DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39380 DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39383 DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	03/06/85-07/21/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39390 ENDRIN IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39393 ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39403 TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	03/06/85-07/21/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39413 HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	03/06/85-07/21/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
39516 PCBs IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39526	PCBS TOTAL,IN SEDIMENT,DRY (ISOMER ANALYSES) UG/KG	03/06/85-07/21/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39630	ATRAZINE(AATREX) IN WHOLE WATER SAMPLE (UG/L)	06/29/82-06/29/82	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39631	ATRAZINE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/12/81-05/12/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39700	HEXAChLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	10/16/79-09/08/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	03/13/91-06/01/93	7	49.	46.714	54.	32.	64.238	8.015	**	**	**	**
70505	PHOSPHATE,TOTAL,COLORIMETRIC METHOD (MG/L AS P)	03/20/75-06/14/79	41 ##	0.05	0.073	0.2	0.05	0.001	0.037	0.05	0.05	0.1	0.1
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	110	0.05	0.047	0.13	0.005	0.	0.022	0.02	0.03	0.06	0.07
71900	MERCURY, TOTAL (UG/L AS HG)	03/20/75-06/01/93	17 ##	0.15	0.185	0.25	0.15	0.002	0.049	0.15	0.15	0.25	0.25
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/12/81-07/21/92	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
82032	CALCIUM - TOTAL UG/L (AS CA)	09/02/92-03/03/93	3	14760.	15203.333	16470.	14380.	1239433.333	1113.298	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/04/91-06/08/94	12	5.95	8.917	29.	1.	68.454	8.274	1.48	3.375	14.	26.03

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0146

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	22	2	0.09	5	1	0.20	10	0	0.00	7	1	0.14			
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	54	1	0.02	18	0	0.00	20	0	0.00	16	1	0.06			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	69	1	0.01	22	0	0.00	28	0	0.00	19	1	0.05			
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	165	4	0.02	48	4	0.08	63	0	0.00	54	0	0.00			
00400	PH	Fresh Chronic	9.	233	2	0.01	70	0	0.00	90	1	0.01	73	1	0.01			
		Other-Lo Lim.	6.5	233	44	0.19	70	12	0.17	90	17	0.19	73	15	0.21			
00403	PH, LAB	Fresh Chronic	9.	90	0	0.00	27	0	0.00	37	0	0.00	26	0	0.00			
		Other-Lo Lim.	6.5	90	11	0.12	27	6	0.22	37	3	0.08	26	2	0.08			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	223	0	0.00	64	0	0.00	90	0	0.00	69	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	206	2	0.01	60	0	0.00	82	2	0.02	64	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	17	0	0.00	4	0	0.00	8	0	0.00	5	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	87	0	0.00	25	0	0.00	36	0	0.00	26	0	0.00			
		Drinking Water	250.	87	2	0.02	25	0	0.00	36	2	0.06	26	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	86	0	0.00	24	0	0.00	36	0	0.00	26	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	26	0	0.00	6	0	0.00	12	0	0.00	8	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	14	0	0.00	1	0	0.00	8	0	0.00	5	0	0.00			
		Drinking Water	50.	14	0	0.00	1	0	0.00	8	0	0.00	5	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	3	0	0.00	1	0	0.00	2	0	0.00						
		Drinking Water	4.	0 &	0	0.00												
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2 &	0	0.00				1	0	0.00	1	0	0.00			
		Drinking Water	5.	2 &	0	0.00				1	0	0.00	1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	17	0	0.00	1	0	0.00	8	0	0.00	8	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	16	1	0.06	1	0	0.00	8	0	0.00	7	1	0.14			
01051	LEAD, TOTAL	Drinking Water	1300.	16	0	0.00	1	0	0.00	8	0	0.00	7	0	0.00			
		Fresh Acute	82.	17	0	0.00	1	0	0.00	8	0	0.00	8	0	0.00			
01059	THALLIUM, TOTAL	Drinking Water	15.	17	7	0.41	1	0	0.00	8	2	0.25	8	5	0.63			
		Fresh Acute	1400.	3	0	0.00	1	0	0.00	2	0	0.00						
01065	NICKEL, DISSOLVED	Drinking Water	2.	0 &	0	0.00				2	0	0.00	5	0	0.00			
		Fresh Acute	1400.	7	0	0.00				2	0	0.00	5	0	0.00			
01067	NICKEL, TOTAL	Drinking Water	100.	10	0	0.00	1	0	0.00	6	0	0.00	3	0	0.00			
		Fresh Acute	1400.	10	0	0.00	1	0	0.00	6	0	0.00	3	0	0.00			
01092	ZINC, TOTAL	Drinking Water	100.	10	0	0.00	1	0	0.00	8	0	0.00	8	0	0.00			
		Fresh Acute	120.	17	0	0.00	1	0	0.00	8	0	0.00	8	0	0.00			
01147	SELENIUM, TOTAL	Drinking Water	5000.	17	0	0.00	1	0	0.00	8	0	0.00	8	0	0.00			
		Fresh Acute	20.	8	0	0.00	1	0	0.00	5	0	0.00	2	0	0.00			
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	1	1	1.00				1	1	1.00						
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	54	44	0.81	18	17	0.94	20	14	0.70	16	13	0.81			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	164	112	0.68	46	34	0.74	65	37	0.57	53	41	0.77			
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	2	0	0.00	1	0	0.00	1	0	0.00						
		Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00						
39300	P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	2	0	0.00	1	0	0.00	1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### EPA Water Quality Criteria Analysis for Station: RICH0146

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39310 P,P' DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	2	0	0.00	1	0	0.00	1	0	0.00			
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	2	0	0.00	1	0	0.00	1	0	0.00			
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	3	0	0.00	1	0	0.00	1	0	0.00			
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	2	0	0.00	1	0	0.00	1	0	0.00			
	Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00			
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	2	0	0.00	1	0	0.00	1	0	0.00			
39390 ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	2	0	0.00	1	0	0.00	1	0	0.00			
	Drinking Water	2.	2	0	0.00	1	0	0.00	1	0	0.00			
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	2	0	0.00	1	0	0.00	1	0	0.00			
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	1	0	0.00							1	0	0.00
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	2	0	0.00	1	0	0.00	1	0	0.00			
	Drinking Water	1.	2	0	0.00	1	0	0.00	1	0	0.00			
71900 MERCURY, TOTAL	Fresh Acute	2.4	17	0	0.00	1	0	0.00	8	0	0.00	8	0	0.00
	Drinking Water	2.	17	0	0.00	1	0	0.00	8	0	0.00	8	0	0.00
82078 TURBIDITY, FIELD	Other-Hi Lim.	50.	12	0	0.00	3	0	0.00	6	0	0.00	3	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

### Annual Analysis for 1975 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	11	20.	17.909	25.	4.4	43.645	6.606	5.74	12.2	23.3	24.88
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	11	8.2	7.964	12.2	4.6	4.071	2.018	4.96	6.4	9.	11.68
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.95	6.892	7.3	6.5	0.05	0.223	6.5	6.8	7.	7.21
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.947	6.836	7.3	6.5	0.053	0.231	6.5	6.8	7.	7.21
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.113	0.146	0.316	0.05	0.007	0.085	0.065	0.1	0.158	0.316
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	1	150.	150.	150.	0.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	1	96.	96.	96.	0.	0.	0.	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	1	54.	54.	54.	0.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	1	30.	30.	30.	0.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	1	20.	20.	20.	0.	0.	0.	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	1	10.	10.	10.	0.	0.	0.	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.1	0.141	0.3	0.05	0.009	0.094	0.05	0.05	0.2	0.3
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.02	0.024	0.07	0.005	0.	0.019	0.005	0.005	0.03	0.064
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.68	0.694	1.229	0.3	0.068	0.26	0.31	0.58	0.86	1.163
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	11	0.5	0.654	1.599	0.3	0.145	0.38	0.32	0.4	0.8	1.479
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	12	400.	1833.333	6000.	50.	5950606.061	2439.386	50.	50.	4675.	5910.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	12	2.602	2.667	3.778	1.699	0.741	0.861	1.699	1.699	3.655	3.771
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	464.737								
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	11	0.05	0.05	0.1	0.01	0.001	0.027	0.012	0.02	0.07	0.096

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### Annual Analysis for 1976 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	12	17.5	17.267	24.4	6.7	34.421	5.867	7.03	13.175	22.65	24.07
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	12	7.7	8.45	12.6	5.8	4.832	2.198	5.89	6.65	10.5	12.06
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	12	7.15	7.225	7.6	6.8	0.08	0.283	6.86	7.	7.5	7.57
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	7.125	7.145	7.6	6.8	0.087	0.295	6.86	7.	7.5	7.57
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.075	0.072	0.158	0.025	0.002	0.043	0.027	0.032	0.1	0.141
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	2	169.5	169.5	197.	142.	1512.5	38.891	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	2	64.5	64.5	77.	52.	312.5	17.678	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	2	105.	105.	120.	90.	450.	21.213	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	2 ##	1.75	1.75	3.	0.5	3.125	1.768	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	2 ##	1.25	1.25	2.	0.5	1.125	1.061	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	2 ##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	11 ##	0.05	0.1	0.4	0.05	0.011	0.102	0.05	0.05	0.1	0.34
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.02	0.027	0.07	0.005	0.	0.02	0.005	0.01	0.04	0.066
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.58	0.581	0.88	0.3	0.044	0.209	0.304	0.4	0.76	0.88
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	11	0.6	0.663	1.099	0.3	0.06	0.246	0.34	0.5	0.8	1.099
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	11	300.	854.545	6000.	50.	3038227.273	1743.051	50.	100.	800.	5040.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	11	2.477	2.445	3.778	1.699	0.392	0.626	1.699	2.	2.903	3.638
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN =	278.365								
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	10	0.04	0.035	0.05	0.02	0.	0.01	0.02	0.028	0.04	0.049

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### Annual Analysis for 1977 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	8	13.5	11.963	19.	0.8	45.106	6.716	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	8	8.7	8.313	11.6	5.3	3.833	1.958	**	**	**	**
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	8	7.1	7.15	7.5	6.5	0.123	0.351	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	8	7.089	7.014	7.5	6.5	0.144	0.379	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	8	0.082	0.097	0.316	0.032	0.009	0.094	**	**	**	**

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### Annual Analysis for 1977 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	7	0.3	0.214	0.3	0.1	0.011	0.107	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.025	0.039	0.12	0.01	0.001	0.036	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.66	10.895	42.	0.26	430.045	20.738	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	7	0.6	0.643	0.9	0.5	0.02	0.14	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	8	300.	14025.	110000.	100.	1503933571.429	38780.582	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	8	2.477	2.716	5.041	2.	0.976	0.988	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	520.								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	8	0.03	0.035	0.06	0.02	0.	0.017	**	**	**	**

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### Annual Analysis for 1978 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	11	11.5	13.236	28.	0.	83.745	9.151	0.42	6.5	21.	27.4
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	11	8.7	9.3	14.	7.	4.498	2.121	7.	7.6	11.2	13.44
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	11	7.	7.	7.5	6.5	0.064	0.253	6.54	7.	7.1	7.44
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	11	7.	6.931	7.5	6.5	0.069	0.263	6.54	7.	7.1	7.44
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	11	0.1	0.117	0.316	0.032	0.006	0.077	0.038	0.079	0.1	0.293
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	2	167.5	167.5	200.	135.	2112.5	45.962	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	2	41.	41.	52.	30.	242.	15.556	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	2	126.5	126.5	148.	105.	924.5	30.406	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	2	32.5	32.5	58.	7.	1300.5	36.062	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	2	5.5	5.5	8.	3.	12.5	3.536	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	2	27.	27.	50.	4.	1058.	32.527	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	9	0.2	0.156	0.3	0.05	0.007	0.085	0.05	0.075	0.2	0.3
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	9	0.02	0.018	0.03	0.01	0.	0.007	0.01	0.01	0.02	0.03
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	9	0.5	0.533	0.7	0.4	0.015	0.122	0.4	0.4	0.65	0.7
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	10	850.	1295.	3300.	50.	1384694.444	1176.73	85.	400.	2450.	3290.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	10	2.929	2.897	3.519	1.699	0.287	0.535	1.789	2.602	3.383	3.517
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	789.152								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	9	0.05	0.042	0.07	0.005	0.001	0.023	0.005	0.02	0.06	0.07

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### Annual Analysis for 1979 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	8	16.	15.625	26.	6.5	55.768	7.468	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	5	204	224.6	286.	179.	2583.8	50.831	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	9	9.9	9.244	11.8	6.	4.21	2.052	6.	7.35	10.8	11.8
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	4	2.	2.25	3.	2.	0.25	0.5	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	5	19.	19.2	34.	3.	125.2	11.189	**	**	**	**
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	9	7.	6.944	7.4	6.5	0.08	0.283	6.5	6.75	7.15	7.4
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	9	7.	6.867	7.4	6.5	0.087	0.295	6.5	6.75	7.15	7.4
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	9	0.1	0.136	0.316	0.04	0.007	0.085	0.04	0.075	0.179	0.316
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	4	167.5	163.	175.	142.	208.667	14.445	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	4	47.5	254.5	900.	23.	185320.333	430.488	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	4	133.	126.25	145.	94.	510.917	22.603	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	5	8.	11.4	26.	3.	79.3	8.905	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	5	2.	4.	14.	0.	34.	5.831	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	5	8.	7.4	12.	3.	18.3	4.278	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	9	0.1	0.089	0.2	0.05	0.002	0.049	0.05	0.05	0.1	0.2
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	9	0.02	0.017	0.03	0.005	0.	0.009	0.005	0.01	0.025	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	5	0.7	0.59	0.7	0.35	0.025	0.16	**	**	**	**

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### Annual Analysis for 1979 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	9	0.5	0.444	0.6	0.2	0.018	0.133	0.2	0.35	0.55	0.6
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	5 ##	0.05	0.06	0.1	0.05	0.001	0.022	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	5	0.04	0.036	0.05	0.02	0.	0.011	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	5	12.	10.2	17.	0.	43.2	6.573	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	8	850.	987.5	2800.	100.	769821.429	877.395	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	8	2.923	2.807	3.447	2.	0.23	0.479	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			641.102								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	4	0.02	0.033	0.08	0.01	0.001	0.032	**	**	**	**

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### Annual Analysis for 1980 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	11	13.5	15.018	27.	5.5	72.004	8.485	5.5	6.	25.	26.64
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	10	254.	262.9	418.	172.	4581.656	67.688	175.6	210.25	285.75	407.7
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	11	8.6	8.673	11.6	5.1	4.764	2.183	5.28	6.6	10.8	11.52
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	11	2.	2.273	4.	1.	1.018	1.009	1.	1.	3.	3.8
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	11	19.	19.455	27.	14.	13.873	3.725	14.	17.	22.	26.
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	12	7.05	7.125	7.5	6.7	0.078	0.28	6.7	7.	7.4	7.5
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	7.047	7.044	7.5	6.7	0.086	0.293	6.7	7.	7.4	7.5
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.09	0.09	0.2	0.032	0.003	0.058	0.032	0.04	0.1	0.2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	7.	14.182	61.	2.5	305.514	17.479	2.5	5.	14.	55.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	3.	3.909	11.	1.	8.441	2.905	1.	2.5	5.	10.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	4.	10.727	56.	2.5	251.768	15.867	2.5	3.	10.	48.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	11 ##	0.05	0.073	0.1	0.05	0.001	0.026	0.05	0.05	0.1	0.1
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.02	0.022	0.08	0.005	0.	0.022	0.005	0.01	0.02	0.072
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.7	4.446	43.	0.22	163.533	12.788	0.262	0.5	0.8	34.56
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	11	0.4	0.391	0.8	0.1	0.029	0.17	0.14	0.3	0.4	0.74
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	11	0.1	0.095	0.2	0.05	0.003	0.057	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	11	0.03	0.033	0.08	0.02	0.	0.018	0.02	0.02	0.04	0.074
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	11	12.	12.091	19.	10.	6.491	2.548	10.	10.	13.	17.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	400.	1281.818	8000.	50.	5665136.364	2380.155	50.	100.	1700.	6940.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	2.602	2.552	3.903	1.699	0.519	0.721	1.699	2.	3.23	3.809
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			356.306								

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### Annual Analysis for 1981 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	11	16.	14.909	27.	3.	75.941	8.714	3.7	7.	25.	26.8
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	11	282.	299.636	509.	150.	8554.455	92.49	162.6	253.	320.	484.2
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	10	7.3	8.	13.	5.3	6.616	2.572	5.36	5.975	10.4	12.8
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	11	3.	2.364	4.	1.	1.455	1.206	1.	1.	3.	4.
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	11	16.	18.636	42.	13.	69.855	8.358	13.	14.	19.	38.4
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	10	7.	7.02	7.6	6.	0.204	0.452	6.07	6.85	7.35	7.59
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	10	7.	6.746	7.6	6.	0.288	0.536	6.07	6.85	7.35	7.59
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	10	0.1	0.18	1.	0.025	0.086	0.293	0.026	0.045	0.144	0.92
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	1	0.126	0.126	0.126	0.126	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	1	31.	31.	31.	31.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	8.	13.818	57.	2.5	244.914	15.65	2.5	5.	17.	50.2
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	3.	4.364	10.	2.	6.005	2.45	2.1	2.5	6.	9.4

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1981 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	4.	10.136	47.	1.	185.655	13.626	1.3	2.5	14.	41.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.1	0.114	0.3	0.05	0.007	0.084	0.05	0.05	0.2	0.28
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.02	0.023	0.04	0.01	0.	0.009	0.01	0.02	0.03	0.038
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.6	0.564	0.9	0.05	0.061	0.248	0.098	0.47	0.8	0.88
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	11	0.4	0.509	0.9	0.3	0.031	0.176	0.32	0.4	0.6	0.86
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	11	0.1	0.082	0.1	0.05	0.001	0.025	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	11	0.05	0.055	0.13	0.02	0.001	0.035	0.022	0.03	0.06	0.126
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	11	10.	12.	25.	6.	33.4	5.779	6.2	9.	12.	24.2
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	200.	750.	5200.	50.	2373000.	1540.454	50.	50.	300.	4480.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	2.301	2.352	3.716	1.699	0.403	0.635	1.699	1.699	2.477	3.614
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	225.017								

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### Annual Analysis for 1982 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	11	15.	15.909	26.5	5.	56.941	7.546	5.6	10.	24.	26.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	10	226.5	237.6	364.	156.	3969.822	63.007	157.1	195.5	268.25	359.3
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	11	7.7	7.782	11.5	4.3	6.756	2.599	4.3	5.2	10.6	11.4
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	10	2.	2.9	9.	1.	5.433	2.331	1.	1.75	3.25	8.5
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	10	18.5	26.7	87.	9.	533.344	23.094	9.1	12.25	31.5	81.9
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	11	6.8	6.8	7.	6.5	0.026	0.161	6.52	6.7	7.	7.
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	11	6.8	6.772	7.	6.5	0.027	0.164	6.52	6.7	7.	7.
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	11	0.158	0.169	0.316	0.1	0.004	0.066	0.1	0.1	0.2	0.303
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	10	12.	49.75	344.	2.5	10917.403	104.486	3.05	8.75	36.75	315.
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	10	4.5	8.35	46.	2.	176.892	13.3	2.05	2.875	6.	42.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	10	8.5	41.65	298.	2.5	8308.558	91.151	2.55	4.5	30.75	273.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	10	0.125	0.175	0.5	0.05	0.019	0.138	0.05	0.088	0.225	0.48
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	10	0.025	0.027	0.05	0.01	0.	0.013	0.01	0.018	0.04	0.049
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	10	0.515	0.619	1.1	0.32	0.081	0.284	0.325	0.378	0.872	1.09
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	10	0.6	0.615	1.	0.35	0.038	0.194	0.355	0.475	0.725	0.98
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	10	0.1	0.12	0.3	0.05	0.007	0.086	0.05	0.05	0.2	0.29
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	10	0.04	0.059	0.17	0.01	0.002	0.045	0.013	0.04	0.07	0.163
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	10	10.5	10.9	27.	3.	42.767	6.54	3.3	6.	12.25	25.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	10	850.	2180.	8000.	50.	9827888.889	3134.946	50.	237.5	3575.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	10	2.889	2.837	3.903	1.699	0.612	0.783	1.699	2.283	3.467	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	687.492								

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### Annual Analysis for 1983 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	8	9.	11.625	25.	4.	65.625	8.101	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	8	208.5	218.75	408.	115.	7591.071	87.127	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	8	10.05	10.188	12.4	7.8	2.987	1.728	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	7	2.	2.429	4.	2.	0.619	0.787	**	**	**	**
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	8	19.5	20.125	30.	14.	30.696	5.54	**	**	**	**
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	8	6.8	6.75	7.	6.5	0.029	0.169	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	8	6.8	6.72	7.	6.5	0.03	0.172	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	8	0.158	0.191	0.316	0.1	0.006	0.08	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	6.	11.063	48.	2.5	226.174	15.039	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	4.5	4.438	9.	2.	5.674	2.382	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	2.25	6.938	39.	0.	172.317	13.127	**	**	**	**

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### Annual Analysis for 1983 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.2	0.263	0.9	0.1	0.071	0.267	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.015	0.016	0.03	0.005	0.	0.008	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.74	0.645	0.88	0.26	0.062	0.249	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	8	0.575	0.756	1.6	0.3	0.239	0.489	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	8##	0.075	0.087	0.2	0.05	0.003	0.052	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	8	0.04	0.058	0.2	0.02	0.003	0.058	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	8	8.5	9.625	17.	6.	13.125	3.623	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	7	700.	1764.286	8000.	50.	8173928.571	2859.008	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	7	2.845	2.73	3.903	1.699	0.607	0.779	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	537.017								

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### Annual Analysis for 1984 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	8	20.15	16.85	24.5	3.	65.194	8.074	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	8	206.5	255.5	658.	153.	27607.429	166.155	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	8	8.7	8.8	12.8	5.8	7.334	2.708	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	8	1.	1.5	3.	1.	0.571	0.756	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	8	19.	17.875	29.	8.	46.125	6.792	**	**	**	**
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	8	6.465	6.405	6.81	5.7	0.151	0.388	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	8	6.46	6.238	6.81	5.7	0.183	0.427	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	8	0.347	0.578	1.995	0.155	0.381	0.617	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	7.5	7.563	14.	2.5	23.746	4.873	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	3.25	3.813	6.	2.	2.781	1.668	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	3.25	4.688	10.	1.	10.996	3.316	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.1	0.106	0.2	0.05	0.004	0.062	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.015	0.017	0.03	0.005	0.	0.01	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.7	0.68	0.98	0.47	0.033	0.181	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	8	0.65	0.631	1.	0.25	0.068	0.26	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	8##	0.075	0.1	0.3	0.05	0.007	0.085	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	8	0.04	0.071	0.26	0.02	0.006	0.079	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	8	7.5	7.5	12.	4.	8.	2.828	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	7	100.	271.429	600.	100.	49047.619	221.467	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	7	2.	2.297	2.778	2.	0.14	0.374	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	198.165								

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### Annual Analysis for 1985 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	11	16.3	14.155	23.	4.	53.443	7.31	4.1	6.5	21.	22.76
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	11	205.	186.727	251.	96.	3868.418	62.197	96.6	135.	248.	250.6
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	11	9.6	9.073	11.8	5.4	6.282	2.506	5.54	6.4	11.6	11.8
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	9	2.	1.667	2.	1.	0.25	0.5	1.	1.	2.	2.
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	11	23.	24.	43.	11.	102.2	10.109	11.8	15.	30.	42.
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	11	6.5	6.368	6.7	5.75	0.084	0.29	5.82	6.2	6.6	6.7
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	11	6.5	6.268	6.7	5.75	0.095	0.309	5.82	6.2	6.6	6.7
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	11	0.316	0.54	1.778	0.2	0.208	0.456	0.2	0.251	0.631	1.581
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	4	141.	140.75	154.	127.	188.25	13.72	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	4	38.	37.	42.	30.	28.	5.292	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	4	103.	103.75	118.	91.	146.25	12.093	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	8.	13.727	57.	2.5	274.168	16.558	2.5	5.	10.	52.2

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### Annual Analysis for 1985 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	4.	5.455	11.	2.5	9.423	3.07	2.5	3.	9.	10.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	3.	8.727	46.	0.	195.568	13.985	0.2	2.5	6.	41.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	10 ##	0.075	0.095	0.2	0.05	0.004	0.06	0.05	0.05	0.125	0.2
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	10	0.02	0.024	0.07	0.005	0.	0.019	0.006	0.01	0.033	0.067
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	10	0.53	0.55	1.	0.14	0.078	0.279	0.153	0.323	0.83	0.989
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	8	0.5	0.525	1.	0.3	0.054	0.231	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	8 ##	0.05	0.075	0.2	0.05	0.003	0.053	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	10	0.05	0.057	0.11	0.02	0.001	0.029	0.021	0.038	0.078	0.109
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	11	9.	9.182	15.	3.	10.564	3.25	3.6	8.	11.	14.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	300.	781.818	3800.	50.	1191136.364	1091.392	50.	100.	1100.	3300.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	2.477	2.549	3.58	1.699	0.363	0.602	1.699	2.	3.041	3.487
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		354.186							

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### Annual Analysis for 1986 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	11	15.5	13.864	26.	4.	63.555	7.972	4.2	6.	22.	25.3
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	11	240.	255.455	558.	130.	12426.473	111.474	140.	189.	266.	509.2
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	11	8.	8.782	11.8	5.6	5.31	2.304	5.7	7.1	11.4	11.72
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	11	2.	2.364	4.	1.	0.855	0.924	1.	2.	3.	3.8
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	11	16.	19.	32.	14.	38.	6.164	14.	14.	25.	31.
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	11	7.33	7.221	7.81	6.6	0.179	0.424	6.62	6.7	7.6	7.77
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	11	7.33	7.036	7.81	6.6	0.217	0.466	6.62	6.7	7.6	7.77
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	11	0.047	0.092	0.251	0.015	0.007	0.086	0.017	0.025	0.2	0.241
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	2	151.	151.	155.	147.	32.	5.657	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	2	31.	31.	34.	28.	18.	4.243	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	2	120.	120.	127.	113.	98.	9.899	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	6.	14.318	51.	2.5	254.764	15.961	2.5	2.5	25.	47.6
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	11	5.	5.136	11.	0.	10.955	3.31	0.5	2.5	7	10.8
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	10	4.75	10.85	41.	1.	177.614	13.327	1.	2.125	17.25	39.6
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.1	0.155	0.3	0.05	0.008	0.091	0.05	0.1	0.2	0.3
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.03	0.023	0.05	0.01	0.	0.013	0.01	0.01	0.03	0.046
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	11	0.59	0.675	1.2	0.3	0.085	0.291	0.31	0.47	0.99	1.158
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	11	0.6	0.7	1.1	0.5	0.048	0.219	0.5	0.5	0.8	1.1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	11	0.1	0.118	0.2	0.05	0.005	0.068	0.05	0.05	0.2	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	11	0.05	0.053	0.1	0.	0.	0.021	0.03	0.04	0.06	0.096
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	11	7.	7.818	11.	5.	2.964	1.722	5.2	7.	9.	10.6
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	600.	2086.364	8000.	50.	9089045.455	3014.804	60.	100.	2200.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	2.778	2.831	3.903	1.699	0.563	0.751	1.759	2.	3.342	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =		678.101							

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### Annual Analysis for 1987 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	14	16.25	16.793	26.	3.	71.002	8.426	5.	10.	25.8	26.
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	12	209.5	222.083	429.	134.	6305.902	79.41	139.4	155.25	261.25	379.8
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	14	7.75	7.45	12.1	3.2	10.549	3.248	3.2	3.9	10.45	11.5
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	12	2.	2.917	8.	1.	5.356	2.314	1.	1.25	3.75	7.7
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	12	21.	21.167	39.	9.	64.697	8.043	9.6	16.25	25.75	35.4
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	14	7.665	7.341	9.17	5.45	1.304	1.142	5.45	6.08	8.172	8.705
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	14	7.665	6.195	9.17	5.45	2.718	1.649	5.45	6.08	8.172	8.705

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### Annual Analysis for 1987 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	14	0.022	0.639	3.548	0.001	1.605	1.267	0.003	0.007	0.832	3.548
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	5	128.	153.6	249.	120.	2976.3	54.555	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	5	21.	28.2	57.	16.	283.7	16.843	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	5	107.	125.4	192.	104.	1429.8	37.813	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	5.	7.958	26.	2.5	56.566	7.521	2.5	2.5	10.	23.9
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	12##	2.5	3.667	10.	1.	7.561	2.75	1.	2.5	4.75	9.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	4.	5.292	18.	2.5	20.203	4.495	2.5	2.5	6.5	15.3
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.1	0.108	0.2	0.05	0.004	0.06	0.05	0.05	0.175	0.2
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.02	0.026	0.07	0.005	0.	0.019	0.007	0.01	0.038	0.064
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.785	0.712	0.98	0.2	0.046	0.213	0.305	0.583	0.825	0.977
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	12	0.55	0.658	1.2	0.4	0.07	0.264	0.4	0.5	0.8	1.17
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	12	0.1	0.1	0.2	0.05	0.001	0.037	0.05	0.1	0.1	0.17
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	12	0.04	0.045	0.08	0.03	0.	0.014	0.03	0.04	0.05	0.074
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	8	7.5	7.75	10.	6.	1.643	1.282	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	200.	1681.818	8000.	50.	9821136.364	3133.869	50.	100.	800.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	11	2.301	2.548	3.903	1.699	0.606	0.778	1.699	2.	2.903	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	353.441								

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### Annual Analysis for 1988 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	8	18.5	17.588	22.1	10.2	16.393	4.049	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	6	177.	188.667	270.	143.	2462.267	49.621	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	8	7.25	7.15	10.8	5.3	3.271	1.809	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	5	3.	2.4	4.	1.	1.8	1.342	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	6	21.5	21.	25.	18.	7.2	2.683	**	**	**	**
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	8	7.5	7.643	9.23	6.63	0.571	0.756	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	8	7.496	7.266	9.23	6.63	0.733	0.856	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	8	0.032	0.054	0.234	0.001	0.006	0.075	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	1	100000.	100000.	100000.	100000.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	6##	2.25	2.25	5.	0.5	2.875	1.696	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	6##	1.75	1.75	3.	0.5	1.475	1.214	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	6##	0.75	1.167	2.5	0.5	0.767	0.876	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	6	0.085	0.123	0.24	0.08	0.005	0.067	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	6	0.025	0.063	0.22	0.005	0.007	0.083	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	6	0.515	0.587	1.1	0.27	0.087	0.295	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	6	0.75	0.717	0.9	0.4	0.038	0.194	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	6	0.15	0.15	0.2	0.1	0.003	0.055	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	5	0.05	0.05	0.07	0.03	0.	0.016	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	6	6.1	6.067	7.5	4.3	1.143	1.069	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	1	24.	24.	24.	24.	0.	0.	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	9	200.	188.889	400.	50.	17986.111	134.112	50.	75.	300.	400.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	9	2.301	2.167	2.602	1.699	0.116	0.34	1.699	1.849	2.452	2.602
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C			GEOMETRIC MEAN =	146.973								

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### Annual Analysis for 1989 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	12	16.25	16.5	26.6	1.5	68.32	8.266	2.52	10.95	24.675	26.12
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	12	210.5	360.5	2055.	80.	292234.636	540.587	93.8	133.	297.25	1556.1
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	1	207.	207.	207.	0.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	12	8.7	8.625	14.	6.	6.446	2.539	6.	6.1	9.775	13.31
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	13	3.	3.	7.	1.	3.167	1.78	1.	2.	3.5	6.6
00340	COD, 25N K2CR207 MG/L	08/08/79-12/07/98	13	21.	21.538	37.	13.	58.603	7.655	13.	15.5	24.	36.6
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	12	7.02	7.208	8.14	6.15	0.436	0.66	6.276	6.67	7.94	8.122
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	7.006	6.831	8.14	6.15	0.591	0.768	6.276	6.67	7.94	8.122
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.099	0.148	0.708	0.007	0.039	0.198	0.008	0.012	0.218	0.576
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	13	6.9	6.908	7.2	6.7	0.024	0.155	6.7	6.75	7.	7.16
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	13	6.9	6.883	7.2	6.7	0.025	0.157	6.7	6.75	7.	7.16
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	13	0.126	0.131	0.2	0.063	0.002	0.046	0.07	0.1	0.179	0.2
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	13	23.	27.846	42.	13.	91.974	9.59	14.6	22.	39.	41.2
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	12	157.	245.417	1090.	124.	72618.265	269.478	124.6	131.25	223.25	842.5
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	12	36.	34.083	54.	16.	124.447	11.156	17.2	24.75	43.	50.7
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	12	135.5	211.333	1070.	83.	74869.879	273.624	83.	92.75	187.5	812.3
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	13	5.	21.038	178.	0.5	2384.436	48.831	0.7	2.	8.5	126.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	13	2.	4.231	26.	0.5	47.484	6.891	0.5	1.	3.	19.2
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	13	3.	17.	152.	0.5	1755.917	41.904	0.5	0.5	6.	107.2
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.11	0.158	0.38	0.05	0.014	0.117	0.053	0.073	0.223	0.38
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.025	0.104	0.98	0.01	0.076	0.276	0.01	0.02	0.038	0.698
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.81	0.783	1.28	0.02	0.112	0.334	0.149	0.643	0.943	1.265
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	12	0.8	0.883	1.7	0.5	0.118	0.343	0.53	0.6	1.05	1.58
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	12	0.1	0.1	0.1	0.1	0.	0.	0.1	0.1	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	12	0.045	0.054	0.13	0.02	0.001	0.031	0.023	0.04	0.058	0.121
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	13	6.3	6.569	9.6	4.6	1.659	1.288	4.8	5.95	7.	9.08
00900	HARDNESS, TOTAL (MG/L AS CACO3)	01/25/89-12/07/98	12	47.	46.5	92.	4.	476.455	21.828	8.8	36.	57.5	82.4
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	11	31.	69.909	418.	10.	13985.491	118.26	11.	15.	67.	353.8
00945	SULFATE, TOTAL (MG/L AS SO4)	01/25/89-12/07/98	11	17.	16.455	24.	7.	31.273	5.592	7.8	11.	22.	23.8
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	9	300.	1977.778	8000.	50.	11688819.444	3418.892	50.	75.	4300.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	9	2.477	2.615	3.903	1.699	0.68	0.825	1.699	1.849	3.341	3.903
	GEOMETRIC MEAN =				412.474								

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1990 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	8	9.	11.888	19.6	6.5	33.833	5.817	**	**	**	**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	1	238.	238.	238.	0.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	6	192.5	190.5	233.	140.	1207.5	34.749	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	2	9.6	9.6	12.	7.2	11.52	3.394	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	8	11.05	10.013	12.3	6.7	6.127	2.475	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	7	2.	1.714	3.	1.	0.571	0.756	**	**	**	**
00340	COD, 25N K2CR207 MG/L	08/08/79-12/07/98	7	21.	20.857	27.	14.	21.143	4.598	**	**	**	**
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	8	7.6	7.494	7.97	6.74	0.211	0.46	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	8	7.6	7.256	7.97	6.74	0.276	0.526	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	8	0.025	0.056	0.182	0.011	0.004	0.067	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	7	6.8	6.757	6.9	6.5	0.02	0.14	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	7	6.8	6.737	6.9	6.5	0.02	0.141	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	7	0.158	0.183	0.316	0.126	0.004	0.066	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	7	24.	25.	37.	20.	31.333	5.598	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	7	140.	137.714	160.	93.	568.238	23.838	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	7	34.	31.286	43.	14.	105.238	10.259	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	7	107.	106.429	136.	79.	463.952	21.54	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	7	5.	5.714	13.	1.	20.571	4.536	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	7	1.	1.571	4.	0.5	1.536	1.239	**	**	**	**

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### Annual Analysis for 1990 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	7	3.	4.286	12.	1.	17.238	4.152	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.095	0.195	1.	0.02	0.107	0.328	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.02	0.02	0.04	0.01	0.	0.009	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.87	0.879	1.26	0.47	0.058	0.241	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	8	0.6	0.65	0.9	0.5	0.031	0.177	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	8	0.1	0.094	0.1	0.05	0.	0.018	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	8	0.05	0.044	0.06	0.02	0.	0.013	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	7	6.9	7.029	11.2	4.6	4.976	2.231	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	7	47.	47.143	58.	42.	32.81	5.728	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	7	30.	30.	45.	15.	117.333	10.832	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	7	14.	14.857	18.	13.	3.476	1.864	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	5	200.	260.	700.	100.	63000.	250.998	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	5	2.301	2.289	2.845	2.	0.119	0.345	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			194.729								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1991 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	4	17.	16.05	22.3	7.9	45.39	6.737	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	4	174.	175.75	234.	121.	3482.25	59.011	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	3	8.4	8.133	10.7	5.3	7.343	2.71	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	2	7.9	7.9	10.7	5.1	15.68	3.96	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	4	2.	2.	3.	1.	0.667	0.816	**	**	**	**
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	4	16.	17.	26.	10.	54.667	7.394	**	**	**	**
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	4	6.54	6.578	7.04	6.19	0.152	0.389	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	4	6.491	6.461	7.04	6.19	0.17	0.412	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	02/10/75-12/07/98	4	0.323	0.346	0.646	0.091	0.066	0.257	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	4	6.9	6.9	7.2	6.6	0.067	0.258	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	4	6.889	6.844	7.2	6.6	0.071	0.266	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H <sup>+</sup> COMPUTED FROM PH	02/17/81-12/07/98	4	0.129	0.143	0.251	0.063	0.007	0.082	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/81-12/07/98	4	27.5	28.75	41.	19.	96.25	9.811	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	4	121.5	120.75	151.	89.	1182.917	34.394	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	4	37.	35.25	43.	24.	70.25	8.382	**	**	**	**
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	4	83.	85.5	127.	49.	1406.333	37.501	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	6.	5.375	8.	1.5	10.229	3.198	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	1.75	1.625	2.	1.	0.229	0.479	**	**	**	**
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	4.5	4.125	6.	1.5	5.063	2.25	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	4##	0.045	0.053	0.1	0.02	0.002	0.039	**	**	**	**
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.015	0.016	0.03	0.	0.005	0.	0.011	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.585	0.595	0.87	0.34	0.05	0.223	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	4	0.55	0.525	0.6	0.4	0.009	0.096	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	4	0.1	0.113	0.2	0.05	0.004	0.063	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	2	0.045	0.045	0.07	0.02	0.001	0.035	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	4	6.35	6.625	9.1	4.7	4.063	2.016	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	4	49.	50.5	72.	32.	302.333	17.388	**	**	**	**
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	4	21.5	21.5	32.	11.	133.667	11.561	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	4	15.	14.75	17.	12.	4.25	2.062	**	**	**	**
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	4	200.	312.5	800.	50.	117291.667	342.479	**	**	**	**
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	4	2.239	2.27	2.903	1.699	0.281	0.53	**	**	**	**
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			186.121								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	3	0.06	0.05	0.07	0.02	0.001	0.026	**	**	**	**

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### Annual Analysis for 1992 - Station RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	4	16.	15.2	21.9	6.9	54.36	7.373	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	4	190.	171.5	203.	103.	2147.	46.336	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	4	8.2	8.1	10.3	5.7	3.647	1.91	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	4	1.	1.75	4.	1.	2.25	1.5	**	**	**	**
00340 COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	4	15.	20.25	45.	6.	296.25	17.212	**	**	**	**
00400p PH (STANDARD UNITS)	02/10/75-12/07/98	4	6.47	6.475	6.89	6.07	0.127	0.357	**	**	**	**
00400p CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	4	6.445	6.372	6.89	6.07	0.141	0.376	**	**	**	**
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	4	0.359	0.425	0.851	0.129	0.102	0.32	**	**	**	**
00403 PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	4	7.1	7.175	7.8	6.7	0.269	0.519	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	4	7.004	6.985	7.8	6.7	0.317	0.563	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	4	0.099	0.103	0.2	0.016	0.008	0.089	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	4	32.5	28.25	35.	13.	108.917	10.436	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	4	130.	128.75	140.	115.	172.917	13.15	**	**	**	**
00505 RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	4	32.	35.75	55.	24.	195.583	13.985	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	4	95.5	93.	116.	65.	479.333	21.894	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	3.	6.	16.	2.	44.667	6.683	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	1.	1.25	3.	0.	1.583	1.258	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	2.5	4.75	13.	1.	30.917	5.56	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.07	0.07	0.08	0.06	0.	0.012	**	**	**	**
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.02	0.02	0.03	0.01	0.	0.008	**	**	**	**
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.725	0.688	1.	0.3	0.084	0.289	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	4	0.6	0.675	1.	0.5	0.056	0.236	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	4	0.075	0.075	0.1	0.05	0.	0.021	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	4	5.25	8.45	20.5	2.8	66.15	8.133	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO3)	01/25/89-12/07/98	4	57.5	61.25	94.	36.	580.917	24.102	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	4	21.5	18.75	23.	9.	44.25	6.652	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO4)	01/25/89-12/07/98	4	17.5	16.75	21.	11.	17.583	4.193	**	**	**	**
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	3	400.	700.	1600.	100.	630000.	793.725	**	**	**	**
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	3	2.602	2.602	3.204	2.	0.362	0.602	**	**	**	**
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C			GEOMETRIC MEAN = 400.									
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	4	0.05	0.045	0.06	0.02	0.	0.017	**	**	**	**

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### Annual Analysis for 1993 - Station RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	4	14.4	14.95	25.	6.	85.377	9.24	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	4	243.	265.	414.	160.	13064.667	114.301	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	4	9.45	9.025	11.8	5.4	10.149	3.186	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	4	2.	2.5	4.	2.	1.	1.	**	**	**	**
00340 COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	4	16.	16.	19.	13.	12.	3.464	**	**	**	**
00400p PH (STANDARD UNITS)	02/10/75-12/07/98	4	6.545	6.578	6.81	6.41	0.029	0.172	**	**	**	**
00400p CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	4	6.543	6.554	6.81	6.41	0.03	0.174	**	**	**	**
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	4	0.287	0.279	0.389	0.155	0.01	0.099	**	**	**	**
00403 PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	4	7.1	7.075	7.5	6.6	0.136	0.369	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	4	7.1	6.957	7.5	6.6	0.154	0.393	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	4	0.079	0.11	0.251	0.032	0.009	0.097	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	4	28.5	33.25	54.	22.	220.917	14.863	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	4	160.5	167.25	239.	109.	3245.583	56.97	**	**	**	**
00505 RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	4	40.	44.75	62.	37.	134.917	11.615	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	4	110.	122.5	202.	68.	3297.	57.42	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	4.5	8.5	22.	3.	83.	9.11	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	2.	3.75	10.	1.	17.583	4.193	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	4	3.	4.75	12.	1.	24.917	4.992	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.085	0.093	0.18	0.02	0.005	0.069	**	**	**	**
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.02	0.021	0.04	0.005	0.	0.014	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1993 - Station RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	4	0.875	0.775	1.05	0.3	0.114	0.338	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	4	0.65	0.625	0.7	0.5	0.009	0.096	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	4	0.065	0.058	0.07	0.03	0.	0.019	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	4	6.9	6.7	7.4	5.6	0.6	0.775	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	4	62.	61.	70.	50.	92.	9.592	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	4	33.5	45.	96.	17.	1264.667	35.562	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	4	19.	18.	21.	13.	12.	3.464	**	**	**	**
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	4	250.	1075.	3700.	100.	3069166.667	1751.904	**	**	**	**
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	4	2.389	2.587	3.568	2.	0.467	0.683	**	**	**	**
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			386.001								
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	4	0.03	0.03	0.04	0.02	0.	0.008	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1994 - Station RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	8	17.7	18.063	25.4	9.6	37.36	6.112	**	**	**	**
00076 TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/11/94-12/07/98	6	16.1	17.5	42.	4.1	171.932	13.112	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	8	214.5	200.	275.	110.	3566.286	59.718	**	**	**	**
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	8	6.6	6.763	10.8	4.	5.637	2.374	**	**	**	**
00310 BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	8	2.7	2.975	6.3	1.6	2.188	1.479	**	**	**	**
00340 COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	8	19.5	23.375	40.	13.	101.696	10.084	**	**	**	**
00400p PH (STANDARD UNITS)	02/10/75-12/07/98	8	6.605	6.645	7.07	6.26	0.061	0.247	**	**	**	**
00400p CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	8	6.603	6.587	7.07	6.26	0.065	0.255	**	**	**	**
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	8	0.25	0.259	0.55	0.085	0.02	0.142	**	**	**	**
00403 PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	8	6.5	6.563	6.9	6.4	0.023	0.151	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	8	6.5	6.543	6.9	6.4	0.023	0.152	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	8	0.316	0.286	0.398	0.126	0.006	0.08	**	**	**	**
00410 ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/81-12/07/98	8	38.	32.5	46.	18.	125.714	11.212	**	**	**	**
00500 RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	8	146.	143.875	181.	100.	549.554	23.443	**	**	**	**
00505 RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	8	37.5	36.5	55.	17.	152.857	12.364	**	**	**	**
00510 RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	8	111.	107.375	139.	65.	692.268	26.311	**	**	**	**
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	7.5	12.25	32.	3.	101.071	10.053	**	**	**	**
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	2.5	3.438	8.	1.5	6.746	2.597	**	**	**	**
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	8	5.5	8.813	24.	1.5	58.853	7.672	**	**	**	**
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.11	0.106	0.24	0.02	0.005	0.071	**	**	**	**
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	0.025	0.026	0.04	0.01	0.	0.011	**	**	**	**
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	8	1.055	1.014	1.35	0.75	0.054	0.232	**	**	**	**
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	8	0.7	0.713	1.	0.4	0.036	0.189	**	**	**	**
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	8	0.06	0.07	0.13	0.04	0.001	0.032	**	**	**	**
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	8	6.25	7.163	10.8	4.3	6.486	2.547	**	**	**	**
00900 HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	8	55.	51.25	71.	30.	215.929	14.695	**	**	**	**
00940 CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	8	28.5	27.5	40.	8.	141.714	11.904	**	**	**	**
00945 SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	8	18.5	16.375	22.	7.	29.696	5.449	**	**	**	**
31615 FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	07/11/94-12/07/98	6	12600.	11333.333	16000.	5400.	28058666.667	5297.043	**	**	**	**
31615 LOG FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	07/11/94-12/07/98	6	4.084	4.007	4.204	3.732	0.054	0.232	**	**	**	**
31615 GM FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	GEOMETRIC MEAN =		10158.335									
31616 FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	2	4050.	4050.	8000.	100.	31205000.	5586.144	**	**	**	**
31616 LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	2	2.952	2.952	3.903	2.	1.811	1.346	**	**	**	**
31616 GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =		894.427									
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	8	0.03	0.034	0.06	0.02	0.	0.015	**	**	**	**

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### Annual Analysis for 1995 - Station RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	12	14.95	14.367	26.5	1.2	73.255	8.559	1.74	5.3	22.675	25.66
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/11/94-12/07/98	12	8.45	12.458	36.	3.3	109.177	10.449	3.42	4.125	19.3	33.
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	7	189.	188.857	283.	111.	3816.81	61.78	**	**	**	**
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	12	206.	269.333	1138.	75.	78168.606	279.586	94.8	143.	236.75	884.2
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	12	7.9	8.483	12.8	4.8	8.385	2.896	4.83	5.925	11.675	12.71
00310 BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	12	2.2	2.258	4.7	0.5	1.519	1.232	0.5	1.225	3.	4.34
00340 COD,.25N K2CR2O7 MG/L	08/08/79-12/07/98	12	15.	19.167	34.	11.	63.061	7.941	11.	12.5	25.75	32.5
00400p PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.715	6.743	7.02	6.45	0.033	0.181	6.471	6.62	6.93	7.011
00400p CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.714	6.71	7.02	6.45	0.034	0.185	6.471	6.62	6.93	7.011
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.193	0.195	0.355	0.095	0.006	0.079	0.098	0.118	0.241	0.339
00403 PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	12	6.8	6.842	7.5	6.6	0.063	0.25	6.6	6.7	6.9	7.38
00403 CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	12	6.8	6.792	7.5	6.6	0.065	0.256	6.6	6.7	6.9	7.38
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	12	0.158	0.162	0.251	0.032	0.004	0.065	0.046	0.126	0.2	0.251
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	12	30.	28.667	46.	17.	75.333	8.679	17.9	21.	34.	43.6
00500 RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	12	134.5	171.417	602.	88.	18783.356	137.052	97.3	121.75	149.25	472.1
00505 RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	12	31.	34.167	52.	20.	91.424	9.562	21.2	26.75	42.75	49.6
00510 RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	12	105.	137.25	559.	67.	18056.205	134.373	67.3	80.75	120.75	428.8
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	6.	8.833	20.	3.	43.97	6.631	3.	3.25	16.25	19.7
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	12##	1.5	2.208	5.	1.5	1.884	1.373	1.5	1.5	2.625	5.
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	4.	6.625	15.	1.5	29.733	5.453	1.5	1.875	13.	15.
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.085	0.105	0.27	0.02	0.007	0.086	0.02	0.043	0.143	0.27
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.02	0.02	0.05	0.005	0.	0.014	0.005	0.006	0.028	0.047
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.74	0.779	1.26	0.43	0.063	0.251	0.451	0.563	0.96	1.215
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	12	0.6	0.658	1.1	0.4	0.074	0.271	0.4	0.4	0.9	1.1
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	12	0.07	0.073	0.11	0.04	0.001	0.023	0.043	0.053	0.095	0.11
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	12	7.75	8.283	12.4	4.3	5.725	2.393	4.9	6.675	10.275	12.19
00900 HARDNESS, TOTAL (MG/L AS CACO3)	01/25/89-12/07/98	12	51.	51.667	78.	28.	264.242	16.256	29.2	38.75	66.75	75.9
00940 CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	12	25.	50.833	339.	12.	8299.97	91.104	13.2	18.25	32.5	249.3
00945 SULFATE, TOTAL (MG/L AS SO4)	01/25/89-12/07/98	12	15.	15.	22.	9.	15.455	3.931	9.3	12.25	18.25	21.4
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	1450.	6160.75	16000.	9.	54805326.75	7403.062	57.3	317.5	16000.	16000.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	3.155	3.166	4.204	0.954	1.028	1.014	1.337	2.484	4.204	4.204
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	01/25/89-12/07/98	12		1465.959								
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	12	0.05	0.054	0.1	0.03	0.	0.02	0.033	0.04	0.06	0.094

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	12	14.2	14.417	25.2	5.5	49.058	7.004	5.56	9.025	22.05	24.72
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/11/94-12/07/98	12	7.6	9.358	21.	3.4	38.01	6.165	3.4	4.1	15.525	20.1
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	12	239.	242.667	395.	138.	5142.606	71.712	147.9	178.75	284.	373.1
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	12	226.	229.417	396.	139.	4777.356	69.118	147.1	170.75	258.75	364.8
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	12	9.	8.65	12.	4.7	6.197	2.489	4.82	6.275	10.95	11.7
00310 BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	12	1.	1.333	3.	0.5	0.742	0.862	0.5	1.	1.75	3.
00340 COD,.25N K2CR2O7 MG/L	08/08/79-12/07/98	12	19.	19.417	26.	15.	11.538	3.397	15.3	17.	21.5	25.7
00400p PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.56	6.525	6.85	5.87	0.063	0.25	6.005	6.473	6.693	6.82
00400p CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.559	6.439	6.85	5.87	0.071	0.266	6.005	6.472	6.692	6.82
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.276	0.364	1.349	0.141	0.104	0.323	0.152	0.204	0.337	1.088
00403 PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	12	7.	6.992	7.4	6.7	0.037	0.193	6.73	6.825	7.1	7.34
00403 CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	12	7.	6.955	7.4	6.7	0.039	0.197	6.73	6.825	7.1	7.34
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	12	0.1	0.111	0.2	0.04	0.002	0.045	0.047	0.079	0.15	0.187
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	12	27.	28.833	41.	19.	43.061	6.562	19.6	26.	34.5	40.1
00500 RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	12	153.5	152.667	256.	103.	1716.424	41.43	103.6	118.75	166.75	234.4
00505 RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	12	34.5	34.333	45.	22.	64.606	8.038	22.6	25.75	42.25	44.7
00510 RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	12	114.5	118.333	212.	81.	1282.242	35.808	81.	86.5	130.75	190.7
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	3.5	6.625	23.	1.5	48.824	6.987	1.5	1.875	10.5	21.2

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1996 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	12 ##	1.5	1.792	5.	1.5	1.021	1.01	1.5	1.5	1.5	3.95
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	12 ##	1.5	5.125	18.	1.5	34.869	5.905	1.5	1.5	8.75	17.1
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.05	0.068	0.14	0.02	0.002	0.044	0.02	0.028	0.115	0.137
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.02	0.019	0.05	0.01	0.	0.012	0.01	0.01	0.02	0.044
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.915	0.859	1.1	0.53	0.041	0.202	0.563	0.67	1.068	1.1
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	12	0.6	0.55	0.7	0.4	0.01	0.1	0.4	0.425	0.6	0.67
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	12	0.07	0.063	0.08	0.04	0.	0.012	0.043	0.05	0.07	0.07
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	8	7.1	6.988	8.8	5.3	1.496	1.223	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	12	54.5	50.167	64.	35.	96.152	9.806	35.3	40.	57.5	62.2
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	12	32.5	37.583	83.	17.	360.083	18.976	18.2	23.	42.75	76.7
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	12	13.	13.25	18.	10.	7.841	2.8	10.	10.25	15.75	17.7
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	595.	1727.333	9200.	68.	7658314.424	2767.366	98.6	280.	1600.	8060.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	2.768	2.831	3.964	1.833	0.372	0.61	1.952	2.446	3.201	3.894
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			678.382								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	12	0.045	0.047	0.07	0.03	0.	0.012	0.03	0.04	0.058	0.067

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Annual Analysis for 1997 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	12	13.75	13.75	27.6	3.7	62.821	7.926	3.82	6.125	20.8	26.22
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/11/94-12/07/98	12	9.35	12.567	52.	3.	165.121	12.85	3.33	7.	12.65	40.39
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	12	200.5	209.917	356.	106.	4962.811	70.447	106.	183.25	258.5	335.6
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	12	191.5	207.75	372.	95.	5633.295	75.055	95.9	184.25	255.	341.1
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	12	8.3	8.942	13.1	5.3	6.214	2.493	5.63	6.675	11.1	12.8
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	12	1.	1.458	3.	0.5	0.521	0.722	0.65	1.	2.	2.7
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	12	19.	18.75	36.	9.	55.477	7.448	9.6	12.25	22.75	32.7
00400p	PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.695	6.608	6.81	6.05	0.051	0.226	6.122	6.54	6.75	6.801
00400p	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.694	6.54	6.81	6.05	0.056	0.237	6.122	6.54	6.75	6.801
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.202	0.289	0.891	0.155	0.045	0.213	0.158	0.178	0.289	0.778
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	12	6.95	6.942	7.4	6.6	0.066	0.257	6.6	6.725	7.1	7.37
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	12	6.947	6.877	7.4	6.6	0.071	0.266	6.6	6.725	7.1	7.37
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	12	0.113	0.133	0.251	0.04	0.005	0.072	0.043	0.079	0.189	0.251
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/81-12/07/98	12	29.5	29.167	46.	15.	78.879	8.881	15.3	23.75	34.	43.6
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	12	142.	144.333	226.	64.	1419.879	37.681	82.6	127.	154.5	212.8
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	12	38.	39.917	55.	20.	102.629	10.131	23.3	32.75	48.	54.1
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	12	94.5	104.417	189.	44.	1325.174	36.403	54.2	89.25	121.5	176.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	5.5	7.208	28.	1.5	48.703	6.979	1.95	3.25	8.75	22.3
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	12 ##	1.5	2.167	5.	1.5	1.242	1.115	1.5	1.5	3.	4.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	4.	5.292	23.	1.5	33.975	5.829	1.5	1.875	5.75	17.9
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.055	0.062	0.15	0.02	0.002	0.039	0.02	0.025	0.093	0.135
00615p	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.02	0.018	0.04	0.005	0.	0.01	0.005	0.01	0.02	0.037
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.795	0.78	1.18	0.35	0.073	0.27	0.377	0.493	1.033	1.15
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	12	0.6	0.625	1.	0.3	0.038	0.196	0.36	0.5	0.775	0.97
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	12	0.06	0.08	0.24	0.02	0.003	0.059	0.023	0.045	0.095	0.207
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	12	46.	45.583	60.	24.	136.265	11.673	24.	44.	54.75	60.
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	12	28.	31.083	84.	8.	423.902	20.589	8.3	19.25	38.25	73.8
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	12	13.5	13.417	19.	8.	9.538	3.088	8.9	11.	15.	18.4
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	870.	2134.167	16000.	110.	19608571.97	4428.157	116.	185.	1775.	11860.
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	2.938	2.844	4.204	2.041	0.412	0.642	2.063	2.263	3.249	3.946
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			698.607								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	12	0.05	0.057	0.13	0.02	0.001	0.029	0.023	0.04	0.068	0.118

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

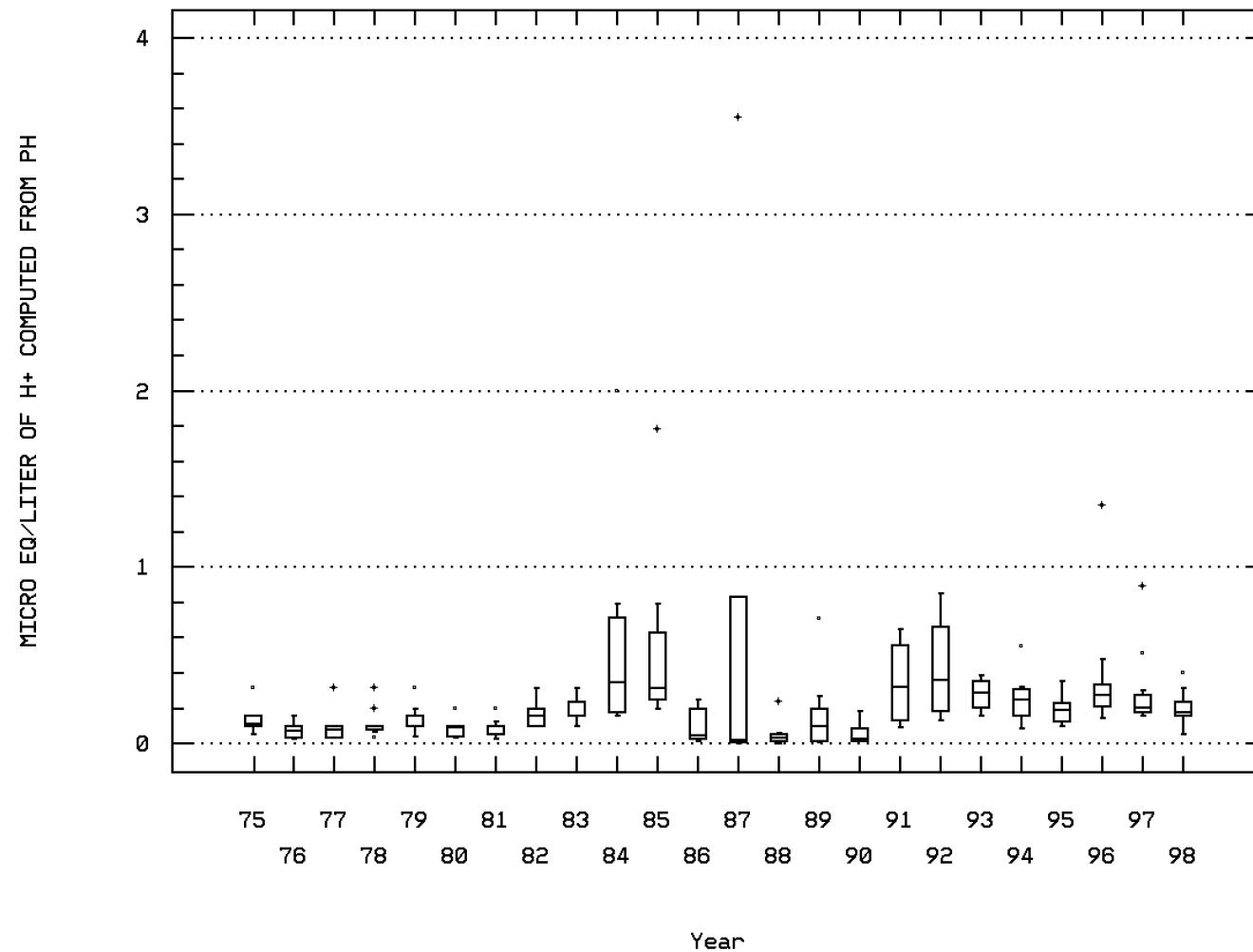
### Annual Analysis for 1998 - Station RICH0146

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	12	16.85	15.942	27.4	5.9	45.764	6.765	6.47	8.825	20.975	26.26
00076 TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	07/11/94-12/07/98	12	6.55	9.008	35.	1.7	81.328	9.018	2.24	3.975	9.	29.45
00094 SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	12	183.	184.25	244.	97.	2240.205	47.331	107.2	147.5	233.	243.1
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	12	197.	186.167	256.	92.	2210.333	47.014	104.9	147.25	218.25	251.5
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	12	7.35	8.067	11.7	5.3	5.361	2.315	5.45	5.9	10.55	11.67
00310 BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	12	3.5	3.167	5.	1.	3.061	1.749	1.	1.	5.	5.
00340 COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	12	20.5	20.25	31.	11.	27.659	5.259	12.2	17.	24.25	29.2
00400p PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.755	6.757	7.26	6.4	0.05	0.224	6.43	6.615	6.815	7.185
00400p CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	12	6.755	6.709	7.26	6.4	0.053	0.23	6.43	6.615	6.815	7.185
00400p MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	12	0.176	0.196	0.398	0.055	0.009	0.092	0.068	0.153	0.243	0.374
00403 PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	12	6.6	6.625	7.	6.4	0.038	0.196	6.4	6.425	6.775	6.97
00403 CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	12	6.6	6.588	7.	6.4	0.04	0.2	6.4	6.425	6.775	6.97
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	12	0.251	0.258	0.398	0.1	0.011	0.104	0.108	0.169	0.378	0.398
00410 ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	12	30.5	33.417	53.	14.	137.538	11.728	16.7	25.5	45.	52.1
00500 RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	12	134.	130.	158.	93.	520.909	22.823	94.8	109.5	152.75	156.8
00505 RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	12	38.5	36.833	49.	23.	79.424	8.912	23.9	28.25	45.25	48.7
00510 RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	12	94.5	93.167	129.	61.	511.061	22.607	62.8	72.5	110.25	128.1
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	5.5	6.792	21.	1.5	26.794	5.176	1.95	4.	7.	18.3
00535 RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	12 ##	1.5	2.125	6.	1.5	1.824	1.351	1.5	1.5	2.625	5.1
00540 RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	12	3.	4.333	15.	1.5	15.788	3.973	1.5	1.5	4.75	13.2
00610p NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.05	0.052	0.14	0.02	0.001	0.037	0.02	0.02	0.075	0.125
00615p NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.015	0.017	0.04	0.005	0.	0.012	0.005	0.006	0.028	0.037
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	12	0.78	0.709	1.08	0.25	0.086	0.293	0.28	0.44	0.993	1.071
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	12	0.75	0.75	1.	0.5	0.023	0.151	0.5	0.7	0.875	0.97
00665 PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	12	0.085	0.099	0.23	0.07	0.002	0.046	0.07	0.073	0.09	0.206
00900 HARDNESS, TOTAL (MG/L AS CACO3)	01/25/89-12/07/98	12	43.	43.333	66.	23.	178.606	13.364	24.2	32.25	55.	64.2
00940 CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	12	22.	21.417	33.	9.	50.629	7.115	9.9	15.5	26.75	31.8
00945 SULFATE, TOTAL (MG/L AS SO4)	01/25/89-12/07/98	12	14.5	14.333	17.	10.	4.788	2.188	10.3	13.25	16.	17.
31615 FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	490.	2506.917	16000.	45.	20085997.72	4481.74	51.9	180.	3500.	12250.
31615 LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	07/11/94-12/07/98	12	2.69	2.84	4.204	1.653	0.609	0.781	1.707	2.215	3.544	4.006
31615 GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)			GEOMETRIC MEAN =	692.343								
70507 PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	12	0.07	0.068	0.1	0.05	0.	0.015	0.05	0.053	0.07	0.097

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding box-and-whisker plot

Station: RICH0146 Parameter Code: 00400

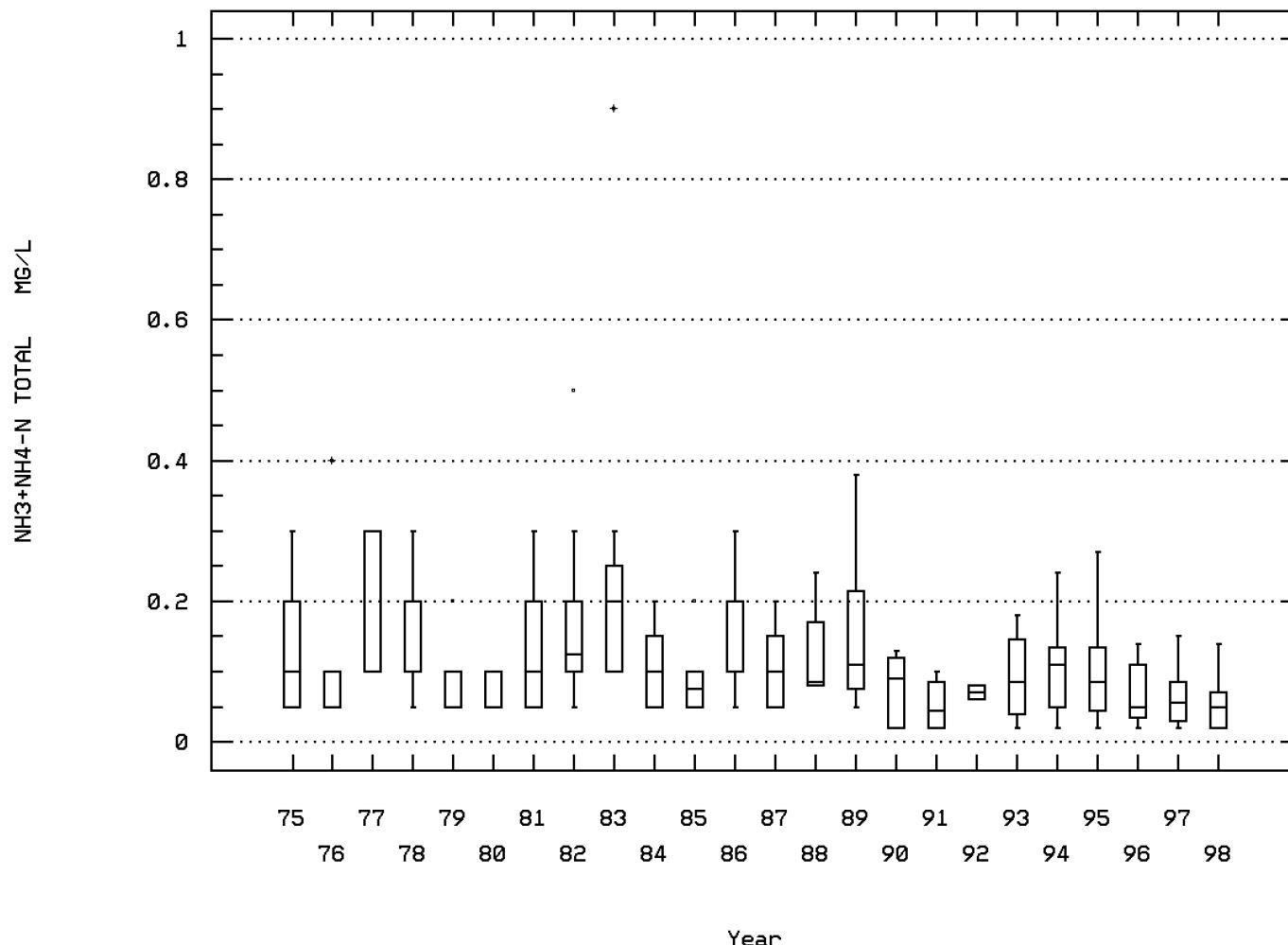
MICRO EQ/LITER OF H<sup>+</sup> COMPUTED FROM PH



RT. 1 BRIDGE (BROOK ROAD)

Station: RICH0146 Parameter Code: 00610

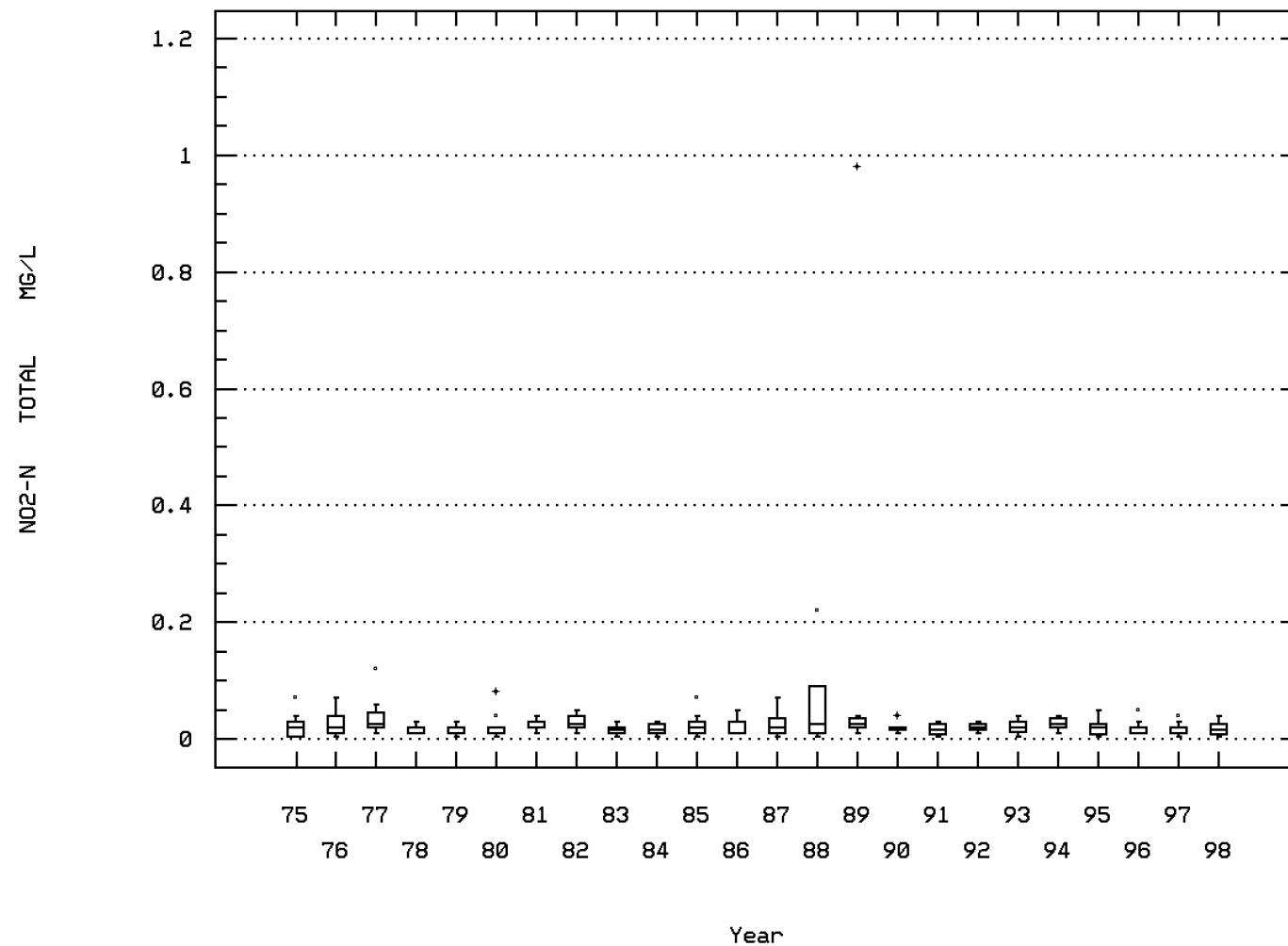
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



RT. 1 BRIDGE (BROOK ROAD)

Station: RICH0146 Parameter Code: 00615

NITRITE NITROGEN, TOTAL (MG/L AS N)



RT. 1 BRIDGE (BROOK ROAD)

### Seasonal Analysis for Season #1: 7/01 to 10/14 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	69	22.5	21.865	28.	2.9	19.81	4.451	16.5	19.55	25.	26.5
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	46	207.5	202.37	286.	99.	2534.994	50.349	133.1	160.5	242.5	272.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	22	192.	199.091	293.	75.	3517.229	59.306	110.	165.5	249.75	286.9
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	22	5.8	6.036	8.1	4.6	1.024	1.012	4.83	5.25	6.975	7.61
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	48	6.4	6.523	9.7	3.2	2.255	1.502	4.53	5.825	7.4	9.
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	53	2.	2.075	8.	0.5	2.31	1.52	1.	1.	3.	4.
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	54	18.	19.315	43.	3.	63.05	7.94	11.	14.	22.25	31.
00400	PH (STANDARD UNITS)	02/10/75-12/07/98	70	6.815	6.876	8.15	5.45	0.245	0.495	6.206	6.615	7.238	7.494
00400	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	70	6.815	6.548	8.15	5.45	0.354	0.595	6.206	6.615	7.238	7.494
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	70	0.153	0.283	3.548	0.007	0.351	0.593	0.032	0.058	0.243	0.623
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	27	6.9	6.678	7.4	1.	1.369	1.17	6.48	6.6	7.1	7.24
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	27	6.9	2.431	7.4	1.	20.095	4.483	6.48	6.6	7.1	7.24
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	27	0.126	3703.855	100000.	0.04370369205.922	19244.979	0.058	0.079	0.251	0.333	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	26	34.	33.923	54.	18.	95.194	9.757	20.	25.	41.	46.3
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	31	150.	142.935	200.	88.	748.796	27.364	100.6	124.	157.	178.6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	31	29.	60.452	900.	16.	24431.189	156.305	17.6	24.	44.	55.
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	31	120.	110.581	148.	65.	629.652	25.093	69.	88.	129.	140.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	55	4.	11.491	61.	0.5	276.227	16.62	1.5	2.5	12.	49.8
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	55	2.	3.173	11.	0.	7.021	2.65	1.	1.5	4.	8.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	55	2.5	8.864	56.	0.5	202.773	14.24	0.8	1.5	8.	40.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	64	0.06	0.082	0.38	0.02	0.004	0.062	0.02	0.05	0.1	0.135
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	64	0.02	0.016	0.05	0.005	0.	0.011	0.005	0.01	0.02	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	60	0.545	0.603	1.35	0.14	0.074	0.273	0.273	0.415	0.78	0.947
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	64	0.5	0.587	1.3	0.25	0.049	0.221	0.4	0.4	0.7	0.9
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	52	0.09	0.093	0.24	0.04	0.002	0.047	0.05	0.05	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	31	0.05	0.05	0.13	0.02	0.001	0.024	0.02	0.03	0.06	0.078
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	44	7.1	7.8	15.	0.	8.579	2.929	4.3	5.925	10.	12.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	01/25/89-12/07/98	25	54.	52.8	94.	30.	240.417	15.505	31.2	40.	63.5	71.
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	25	23.	25.08	42.	8.	89.827	9.478	12.	20.5	32.	40.
00945	SULFATE, TOTAL (MG/L AS SO4)	01/25/89-12/07/98	24	15.	15.375	22.	7.	12.592	3.549	10.	14.	18.	20.
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	46	300.	1385.87	8000.	50.	5958407.005	2440.985	50.	100.	1075.	8000.
31616	LOG FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C	02/10/75-06/08/94	46	2.477	2.623	3.903	1.699	0.447	0.669	1.699	2.	3.028	3.903
31616	GM FECAL COLIFORM, MEMBR FILTER,M-FC BROTH,44.5 C				419.63								
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	32	0.05	0.052	0.1	0.005	0.001	0.023	0.023	0.04	0.07	0.084

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	90	7.45	8.461	25.	0.	20.228	4.498	3.52	5.5	11.5	14.94
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	59	243.	291.034	2055.	96.	66463.309	257.805	138.	201.	314.	418.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	30	216.5	246.9	1138.	92.	34042.024	184.505	122.8	174.25	244.5	393.6
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	28	10.8	10.343	13.1	5.3	3.909	1.977	7.02	8.875	11.95	12.53
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	63	10.9	10.635	14.	6.	2.818	1.679	8.	9.6	11.8	12.36
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	71	2.	2.28	9.	0.5	1.704	1.305	1.	1.	3.	
00340	COD, 25N K2CR2O7 MG/L	08/08/79-12/07/98	74	18.5	19.838	87.	6.	105.48	10.27	11.5	14.75	22.25	30.
00400	PH (STANDARD UNITS)	02/10/75-12/07/98	90	6.8	6.922	9.17	5.75	0.289	0.538	6.4	6.615	7.033	7.609
00400	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	90	6.8	6.672	9.17	5.75	0.353	0.594	6.4	6.615	7.033	7.609
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	90	0.158	0.213	1.778	0.001	0.071	0.267	0.025	0.093	0.243	0.398
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	37	6.8	6.819	7.8	6.4	0.071	0.266	6.58	6.6	6.9	7.1
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	37	6.8	6.756	7.8	6.4	0.075	0.274	6.58	6.6	6.9	7.1
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	37	0.158	0.176	0.398	0.016	0.008	0.087	0.079	0.126	0.251	0.264
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/17/81-12/07/98	37	26.	28.378	53.	14.	90.408	9.508	17.	21.5	36.5	41.2
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	46	145.	180.783	1090.	64.	24859.996	157.671	106.	127.5	169.75	242.
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	46	37.5	36.935	77.	14.	117.618	10.845	23.1	29.75	43.	48.3
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	46	111.5	143.848	1070.	44.	25244.887	158.886	75.7	89.5	128.5	196.4

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #2: 10/15 to 3/15 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	76	7.	13.263	344.	0.5	1529.45	39.108	2.5	4.	10.	22.3
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	76	2.5	3.796	46.	0.	30.841	5.553	1.	1.5	4.	7.
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	75	4.	9.847	298.	0.	1168.696	34.186	1.	2.5	8.	14.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	90	0.1	0.142	0.9	0.02	0.017	0.129	0.02	0.05	0.2	0.3
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	90	0.02	0.03	0.98	0.005	0.01	0.102	0.01	0.01	0.02	0.03
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	82	0.8	1.799	43.	0.02	42.004	6.481	0.373	0.663	0.99	1.117
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	90	0.6	0.601	1.7	0.3	0.055	0.236	0.35	0.488	0.7	0.9
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	75	0.07	0.082	0.3	0.02	0.002	0.046	0.05	0.05	0.1	0.1
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	49	0.04	0.045	0.17	0.02	0.001	0.026	0.02	0.03	0.05	0.08
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	60	7.	8.277	27.	2.8	17.085	4.133	4.62	6.	9.	13.
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	36	55.	52.972	92.	24.	170.199	13.046	38.5	44.	59.75	69.2
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	36	30.	54.417	418.	8.	6977.393	83.531	13.8	19.25	44.5	96.3
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	36	16.	16.611	24.	10.	14.244	3.774	11.	14.	19.	22.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	65	200.	2616.154	110000.	50.	186015555.288	13638.752	50.	100.	1000.	3440.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	65	2.301	2.501	5.041	1.699	0.52	0.721	1.699	2.	3.	3.535
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			317.142								
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	43	0.04	0.042	0.1	0.01	0.	0.022	0.02	0.02	0.05	0.076

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

### Seasonal Analysis for Season #3: 3/16 to 6/30 - Station RICH0146

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/10/75-12/07/98	72	17.2	17.228	26.	2.1	28.279	5.318	10.06	13.275	21.725	24.7
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	08/08/79-12/07/98	43	204.	207.605	322.	80.	3564.673	59.705	133.2	162.	252.	300.6
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/15/89-12/07/98	23	194.	188.	292.	95.	2252.182	47.457	113.4	145.	211.	250.2
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	09/17/90-12/07/98	19	7.8	8.079	11.7	4.	3.851	1.962	4.7	7.2	9.5	11.
00300	OXYGEN, DISSOLVED MG/L	02/10/75-06/05/91	54	7.9	7.928	11.1	4.3	3.392	1.842	5.35	6.575	9.525	10.45
00310	BOD, 5 DAY, 20 DEG C MG/L	08/08/79-12/07/98	52	2.	2.548	7.	1.	2.085	1.444	1.	2.	3.3	4.49
00340	COD, .25N K2CR2O7 MG/L	08/08/79-12/07/98	53	22.	22.358	45.	9.	54.004	7.349	14.4	17.	25.	33.6
00400	PH (STANDARD UNITS)	02/10/75-12/07/98	73	6.82	6.967	9.23	5.7	0.328	0.573	6.372	6.59	7.39	7.702
00400	CONVERTED PH (STANDARD UNITS)	02/10/75-12/07/98	73	6.82	6.683	9.23	5.7	0.41	0.64	6.372	6.59	7.39	7.702
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/10/75-12/07/98	73	0.151	0.207	1.995	0.001	0.079	0.282	0.02	0.041	0.257	0.429
00403	PH, LAB, STANDARD UNITS SU	02/17/81-12/07/98	26	6.8	6.858	7.5	6.4	0.072	0.269	6.57	6.7	7.	7.36
00403	CONVERTED PH, LAB, STANDARD UNITS	02/17/81-12/07/98	26	6.8	6.79	7.5	6.4	0.077	0.277	6.57	6.7	7.	7.36
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/17/81-12/07/98	26	0.158	0.162	0.398	0.032	0.007	0.085	0.045	0.1	0.2	0.271
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	02/17/81-12/07/98	26	27.	26.846	39.	13.	51.015	7.143	14.4	22.5	32.25	37.3
00500	RESIDUE, TOTAL (MG/L)	03/20/75-12/07/98	30	140.5	142.333	265.	93.	884.782	29.745	118.1	125.5	153.25	162.7
00505	RESIDUE, TOTAL VOLATILE (MG/L)	03/20/75-12/07/98	30	41.5	40.967	96.	18.	192.378	13.87	26.1	32.	46.5	53.8
00510	RESIDUE, TOTAL FIXED (MG/L)	03/20/75-12/07/98	30	100.5	101.367	211.	54.	909.275	30.154	65.2	81.75	112.25	135.5
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/20/75-12/07/98	55	7.	13.309	178.	0.5	637.514	25.249	2.3	4.	13.	30.4
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	03/20/75-12/07/98	55	2.5	4.027	26.	0.5	19.837	4.454	1.3	1.5	5.	9.4
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	03/20/75-12/07/98	55	3.	9.509	152.	0.5	463.495	21.529	1.3	2.5	9.	21.2
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/20/75-12/07/98	68	0.1	0.123	1.	0.02	0.016	0.127	0.05	0.05	0.15	0.203
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	69	0.03	0.035	0.22	0.005	0.001	0.031	0.01	0.02	0.04	0.07
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	03/20/75-12/07/98	64	0.685	0.688	1.229	0.26	0.05	0.223	0.38	0.523	0.827	1.01
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/20/75-12/07/98	66	0.675	0.716	1.6	0.1	0.075	0.274	0.4	0.5	0.9	1.03
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/08/79-12/07/98	51	0.1	0.103	0.3	0.04	0.003	0.055	0.05	0.06	0.1	0.2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	08/08/79-06/05/91	33	0.04	0.062	0.26	0.01	0.003	0.052	0.02	0.03	0.07	0.122
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	08/08/79-08/26/96	45	9.	9.82	25.	4.6	15.887	3.986	6.22	7.05	11.1	14.24
00900	HARDNESS, TOTAL (MG/L AS CACO <sub>3</sub> )	01/25/89-12/07/98	26	42.	40.423	64.	4.	187.454	13.691	22.1	31.	50.25	56.6
00940	CHLORIDE, TOTAL IN WATER MG/L	10/06/88-12/07/98	26	26.	25.731	62.	9.	142.045	11.918	9.7	15.75	31.	42.
00945	SULFATE, TOTAL (MG/L AS SO <sub>4</sub> )	01/25/89-12/07/98	26	12.	12.269	17.	7.	5.485	2.342	8.7	11.	13.25	16.
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	53	300.	1427.358	8000.	50.	5452169.811	2334.988	70.	200.	1300.	5720.
31616	LOG FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	02/10/75-06/08/94	53	2.477	2.664	3.903	1.699	0.426	0.653	1.819	2.301	3.113	3.757
31616	GM FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5 C	GEOMETRIC MEAN =			460.838								
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	03/20/75-12/07/98	35	0.05	0.049	0.13	0.01	0.	0.021	0.02	0.04	0.06	0.07

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding box-and-whisker plot

## Station Inventory for Station: RICH0147

NPS Station ID: RICH0147  
 Location: CHICKAHOMINY RIVER NEAR ATLEE, VA  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080206  
 RF3 Index: 02080106101700.00  
 Description:

LAT/LON: 37.641670/ -77.421949

Agency: 112WRD  
 FIPS State/County: 51085 VIRGINIA/HANOVER  
 STORET Station ID(s): 02042287  
 Within Park Boundary: No

Date Created: 06/02/90

Depth of Water: 0  
 Elevation: 0  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 0.00

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 15.70  
 Distance from RF3: 0.29

On/Off RF1:  
 On/Off RF3:

## Parameter Inventory for Station: RICH0147

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/31/89-09/04/91	19	17.5	17.805	27.1	6.4	32.554	5.706	8.8	15.	22.2	25.5
00020 TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/31/89-09/04/91	19	22.	21.774	31.5	12.	38.561	6.21	12.	14.2	26.	30.5
00025 BAROMETRIC PRESSURE (MM OF HG)	10/31/89-09/04/91	21	756.	756.667	766.	746.	19.633	4.431	752.4	754.	760.	763.6
00061 FLOW, STREAM, INSTANTANEOUS CFS	10/31/89-09/04/91	23	55.	210.396	2180.	0.3	221791.233	470.947	0.88	18.	104.	685.
00065 STAGE, STREAM (FEET)	06/11/91-06/11/91	1	1.55	1.55	1.55	1.55	0.	0.	**	**	**	**
00080 COLOR (PLATINUM-COBALT UNITS)	10/31/89-09/04/91	25	90.	86.	170.	25.	1585.75	39.821	37.8	52.5	110.	152.
00095 SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/31/89-09/04/91	25	138.	139.	370.	41.	4481.25	66.942	63.8	90.	161.5	222.
00300 OXYGEN, DISSOLVED MG/L	10/31/89-09/04/91	19	6.1	6.211	10.2	3.4	3.287	1.813	3.4	4.8	7.8	8.7
00400 PH (STANDARD UNITS)	10/31/89-09/04/91	24	6.6	6.645	8.3	5.6	0.385	0.621	5.8	6.4	6.815	7.725
00440 CONVERTED PH (STANDARD UNITS)	10/31/89-09/04/91	24	6.6	6.328	8.3	5.6	0.49	0.7	5.8	6.4	6.815	7.725
00440 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/31/89-09/04/91	24	0.251	0.47	2.512	0.005	0.391	0.625	0.026	0.153	0.398	1.627
00403 PH, LAB, STANDARD UNITS SU	10/31/89-10/31/89	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00403 CONVERTED PH, LAB, STANDARD UNITS	10/31/89-10/31/89	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00403 MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/31/89-10/31/89	1	0.126	0.126	0.126	0.126	0.	0.	**	**	**	**
00452 CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	06/11/91-06/11/91	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00453 BICARBONATE, WATER,DISS,INCR TIT, FIELD, AS HCO3,MG/L	06/11/91-06/11/91	1	60.	60.	60.	60.	0.	0.	**	**	**	**
00556 OIL & GREASE (FREON EXTR,-GRAV METH) TOT,REC,MG/L	10/31/89-09/04/91	21 ##	0.5	0.619	3.	0.5	0.298	0.546	0.5	0.5	0.5	0.5
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/31/89-09/04/91	25	0.07	0.076	0.229	0.008	0.002	0.041	0.041	0.053	0.092	0.113
00625 NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/31/89-09/04/91	25	0.7	0.768	1.6	0.5	0.08	0.282	0.5	0.6	0.85	1.24
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/31/89-09/04/91	25	0.18	0.229	0.83	0.04	0.027	0.164	0.104	0.145	0.26	0.446
00665 PHOSPHORUS, TOTAL (MG/L AS P)	10/31/89-09/04/91	25	0.088	0.088	0.135	0.029	0.001	0.03	0.044	0.061	0.121	0.124
00680 CARBON, TOTAL ORGANIC (MG/L AS C)	10/31/89-09/04/91	25	12.	11.76	15.	5.9	6.253	2.501	8.1	9.8	14.	15.
00720 CYANIDE, TOTAL (MG/L AS CN) MG/L	10/31/89-09/15/90	16 ##	0.005	0.005	0.005	0.005	0.	0.	0.005	0.005	0.005	0.005
00940 CHLORIDE, TOTAL IN WATER MG/L	10/31/89-09/04/91	25	15.	15.356	27.	0.9	32.777	5.725	7.8	11.	18.	23.
00945 SULFATE, TOTAL (MG/L AS SO4)	10/31/89-09/04/91	25	10.	12.86	32.	0.5	64.698	8.044	7.	8.	18.	27.6
00950 FLUORIDE, DISSOLVED (MG/L AS F)	02/05/91-02/05/91	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
01002 ARSENIC, TOTAL (UG/L AS AS)	10/31/89-09/04/91	25 ##	0.5	4.06	45.	0.5	151.819	12.321	0.5	0.5	0.5	18.3
01027 CADMIUM, TOTAL (UG/L AS CD)	10/31/89-09/04/91	25 ##	0.5	0.8	4.	0.5	0.625	0.791	0.5	0.5	0.5	2.
01034 CHROMIUM, TOTAL (UG/L AS CR)	10/31/89-09/04/91	25	1.	2.	7.	0.5	3.729	1.931	0.5	0.5	3.5	5.
01037 COBALT, TOTAL (UG/L AS CO)	10/31/89-10/31/89	1	1.	1.	1.	1.	0.	0.	**	**	**	**
01042 COPPER, TOTAL (UG/L AS CU)	10/31/89-09/04/91	25	3.	5.	27.	1.	29.167	5.401	1.6	2.	6.	12.
01045 IRON, TOTAL (UG/L AS FE)	10/31/89-09/04/91	25	2400.	2419.2	4100.	980.	837382.667	915.086	1320.	1650.	3200.	3600.
01046 IRON, DISSOLVED (UG/L AS FE)	10/31/89-09/04/91	25	740.	938.4	1900.	250.	321164.	566.713	288.	455.	1550.	1740.
01051 LEAD, TOTAL (UG/L AS PB)	10/31/89-09/04/91	25	3.	3.22	7.	0.5	2.21	1.487	1.6	2.	4.	5.4
01055 MANGANESE, TOTAL (UG/L AS MN)	10/31/89-09/04/91	25	330.	516.	2600.	50.	298125.	546.008	94.	170.	775.	1096.
01056 MANGANESE, DISSOLVED (UG/L AS MN)	10/31/89-07/28/91	11	110.	118.182	190.	50.	2696.364	51.927	50.	60.	180.	188.
01067 NICKEL, TOTAL (UG/L AS NI)	10/31/89-09/04/91	22	2.	2.591	7.	1.	3.11	1.764	1.	1.	3.25	5.7
01092 ZINC, TOTAL (UG/L AS ZN)	10/31/89-09/04/91	25	20.	31.	90.	5.	395.833	19.896	16.	20.	40.	68.

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0147

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01147	SELENIUM, TOTAL (UG/L AS SE)	10/31/89-10/31/89	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	10/31/89-01/25/90	2	1.85	1.85	2.8	0.9	1.805	1.344	**	**	**	**
32213	PHEOPHYTIN-A,FLUORIMETRIC METHOD (UG/L)	10/31/89-01/25/90	2	1.8	1.8	2.9	0.7	2.42	1.556	**	**	**	**
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	10/31/89-09/04/91	25 ##	0.5	1.18	5.	0.5	1.685	1.298	0.5	0.5	1.5	4.
39086	ALKALINITY, WATER DISS, INCR TIT, FIELD, AS CACO3, MG/L	06/11/91-06/11/91	1	49.	49.	49.	49.	0.	0.	**	**	**	**
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/31/89-09/04/91	25	0.044	0.045	0.087	0.019	0.	0.017	0.021	0.034	0.061	0.068
71900	MERCURY, TOTAL (UG/L AS HG)	10/31/89-09/04/91	25 ##	0.05	0.14	1.	0.05	0.068	0.26	0.05	0.05	0.05	0.66
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	10/31/89-07/29/91	23	18.	25.391	94.	7.	441.067	21.002	7.8	12.	37.	58.6

\*\* - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0147

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	19	2	0.11	6	2	0.33	3	0	0.00	10	0	0.00			
00400	PH	Fresh Chronic	9.	24	0	0.00	8	0	0.00	3	0	0.00	13	0	0.00			
00403	PH, LAB	Other-Lo Lim.	6.5	24	9	0.38	8	1	0.13	3	2	0.67	13	6	0.46			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	16	0	0.00	4	0	0.00	2	0	0.00	10	0	0.00			
00940	CHLORIDE, TOTAL IN WATER	Drinking Water	0.2	16	0	0.00	4	0	0.00	2	0	0.00	10	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00	0	0	0.00	1	0	0.00	14	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
01027	CADMIUM, TOTAL	Drinking Water	50.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
01034	CHROMIUM, TOTAL	Fresh Acute	3.9	25	1	0.04	8	0	0.00	3	1	0.33	14	0	0.00			
01042	COPPER, TOTAL	Drinking Water	5.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	100.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
01067	NICKEL, TOTAL	Drinking Water	18.	25	1	0.04	8	0	0.00	3	0	0.00	14	1	0.07			
01092	ZINC, TOTAL	Fresh Acute	1300.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
01147	SELENIUM, TOTAL	Drinking Water	82.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	15.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
		Drinking Water	1400.	22	0	0.00	5	0	0.00	3	0	0.00	14	0	0.00			
		Drinking Water	100.	22	0	0.00	5	0	0.00	3	0	0.00	14	0	0.00			
		Fresh Acute	120.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
		Drinking Water	5000.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
		Fresh Acute	20.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
		Fresh Acute	2.4	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			
		Drinking Water	2.	25	0	0.00	8	0	0.00	3	0	0.00	14	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## Station Inventory for Station: RICH0148

NPS Station ID: RICH0148

Location: CHICKAHOMINY RIVER AT I-295 NEAR ATLEE, VA

Station Type: /TYP/A/MBNT/STREAM

RMI-Indexes:

RMI-Miles:

HUC: 02080206

Major Basin:

Minor Basin:

RF1 Index: 02080206

RF3 Index: 02080206160300.20

Description:

LAT/LON: 37.652505/ -77.431115

Agency: 112WRD

FIPS State/County: 51087 VIRGINIA/HENRICO

STORET Station ID(s): 02042286

Within Park Boundary: No

Date Created: 02/01/92

Depth of Water: 0

Elevation: 0

Aquifer:

Water Body Id:

ECO Region:

Distance from RF1: 0.00

Distance from RF3: 0.07

On/Off RF1:

On/Off RF3:

RF1 Mile Point: 0.000

RF3 Mile Point: 6.60

## Parameter Inventory for Station: RICH0148

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/10/84-08/16/85	5	14.	16.5	25.	9.	56.75	7.533	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/10/84-08/16/85	5	20.	17.3	26.	3.	92.45	9.615	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/10/84-08/16/85	5	4.	8.2	18.	2.	53.2	7.294	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/14/85-08/16/85	4	165.	165.	195.	135.	1200.	34.641	**	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

\*\*\*\*\* No EPA Water Quality Criteria exist to compare against the data at this station. \*\*\*\*\*

## Station Inventory for Station: RICH0149

NPS Station ID: RICH0149  
 Location: TURNER RUN  
 Station Type: /TYP/A/MBNT/STREAM  
 RMI-Indexes:  
 RMI-Miles:  
 HUC: 02080206  
 Major Basin:  
 Minor Basin:  
 RF1 Index: 02080206  
 RF3 Index: 02080206006201.93  
 Description:

LAT/LON: 37.656115/ -77.439727

Agency: 12NSS  
 FIPS State/County: 51087 VIRGINIA/HENRICO  
 STORET Station ID(s): 3B059034L /3B03B059034L  
 Within Park Boundary: No

Date Created: 10/22/88

Depth of Water: 0  
 Elevation: 34  
 RF1 Mile Point: 0.000  
 RF3 Mile Point: 2.58

Aquifer:  
 Water Body Id:  
 ECO Region:  
 Distance from RF1: 1.40  
 Distance from RF3: 0.02

On/Off RF1:  
 On/Off RF3:

THESE DATA WERE COLLECTED DURING PHASE I OF THE NATIONAL STREAM AQUATIC EFFECTS RESEARCH PROGRAM UNDER THE NATIONAL ACID SURVEY AS PART OF EPA'S NATIONAL SURFACE WATER SURVEY AND PRECIPITATION ASSESSMENT PROGRAM. THE SURVEY DESIGN, METHODS, AND DATA LIMITATIONS ARE DESCRIBED IN: KAUFMANN, P.R., ET AL. 1988. CHEMICAL CHARACTERISTICS OF STREAMS, IN THE MID-ATLANTIC AND SOUTHEASTERN UNITED STATES. VOL.I: POPULATION DESCRIPTIONS AND PHYSICO-CHEMICAL RELATIONSHIPS. EPA/600/3-88/021A, U.S. ENVIRON. PROT. AGENCY, WASHINGTON, D.C. THE DATA IN STORET ARE THOSE REPORTED IN KAUFMANN ET AL. (1988) WITH THE FOLLOWING EXCEPTIONS: (1) UNITS FOR CHEMICAL PARAMETERS ARE TYPICALLY IN MG/L RATHER THAN MICROEQ/L; (2) NO SUBSTITUTED VALUES ARE PROVIDED FOR SUSPECT DATA; (3) TAGS AND FLAGS USED TO IDENTIFY SUSPICIOUS DATA ARE NOT SHOWN; (4) CALCULATED OR DERIVED VARIABLES ARE EXCLUDED.

### Parameter Inventory for Station: RICH0149

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/03/86-04/03/86	1	17.9	17.9	17.9	17.9	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	04/03/86-04/03/86	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	04/03/86-04/03/86	1	60.	60.	60.	60.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/03/86-04/03/86	1	268.	268.	268.	268.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	04/03/86-04/03/86	1	10.8	10.8	10.8	10.8	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/03/86-04/03/86	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/03/86-04/03/86	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/03/86-04/03/86	1	0.126	0.126	0.126	0.126	0.	0.	**	**	**	**
00409	ALKALINITY, TOTAL,LOW LEVEL GRAN ANALYSIS UEQ/L	04/03/86-04/03/86	1	497.4	497.4	497.4	497.4	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	04/03/86-04/03/86	1	27.	27.	27.	27.	0.	0.	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/03/86-04/03/86	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	04/03/86-04/03/86	1	3.8	3.8	3.8	3.8	0.	0.	**	**	**	**
00691	CARBON, DISSOLVED INORGANIC (MG/L AS C)	04/03/86-04/03/86	1	6.2	6.2	6.2	6.2	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/03/86-04/03/86	1	16.2	16.2	16.2	16.2	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/03/86-04/03/86	1	4.1	4.1	4.1	4.1	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/03/86-04/03/86	1	26.01	26.01	26.01	26.01	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/03/86-04/03/86	1	2.63	2.63	2.63	2.63	0.	0.	**	**	**	**
00941	CHLORIDE, DISSOLVED IN WATER MG/L	04/03/86-04/03/86	1	48.	48.	48.	48.	0.	0.	**	**	**	**
00946	SULFATE, DISSOLVED (MG/L AS SO4)	04/03/86-04/03/86	1	21.4	21.4	21.4	21.4	0.	0.	**	**	**	**

\*\* - Less than 9 observations    ## - Computed with 50% or more of the total observations as values that were half the detection limit    p - Has a corresponding time series plot

### Parameter Inventory for Station: RICH0149

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/03/86-04/03/86	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	04/03/86-04/03/86	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/03/86-04/03/86	1	422.7	422.7	422.7	422.7	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	04/03/86-04/03/86	1	51.	51.	51.	51.	0.	0.	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	04/03/86-04/03/86	1	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**
71885	IRON (UG/L AS FE)	04/03/86-04/03/86	1	500.64	500.64	500.64	500.64	0.	0.	**	**	**	**
72020	ELEVATION IN FEET ABOVE MEAN SEA LEVEL	04/03/86-04/03/86	1	113.	113.	113.	113.	0.	0.	**	**	**	**
82079	TURBIDITY, LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/03/86-04/03/86	1	11.1	11.1	11.1	11.1	0.	0.	**	**	**	**
83509	STREAM, WIDTH METER	04/03/86-04/03/86	1	1.5	1.5	1.5	1.5	1.5	0.	0.	**	**	**

\*\* - Less than 9 observations   ## - Computed with 50% or more of the total observations as values that were half the detection limit   p - Has a corresponding time series plot

### EPA Water Quality Criteria Analysis for Station: RICH0149

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14		10/15-3/15		3/16-6/30		n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00		
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00				1	0	0.00		
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00		
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYS	Other-Lo Lim.	200.	1	0	0.00				1	0	0.00		
00941	CHLORIDE, DISSOLVED IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00		
		Drinking Water	250.	1	0	0.00				1	0	0.00		
00946	SULFATE, DISSOLVED (AS SO4)	Drinking Water	250.	1	0	0.00				1	0	0.00		
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00				1	0	0.00		
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	1	0	0.00				1	0	0.00		
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00				1	0	0.00		

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## EPA Water Quality Criteria Analysis for Entire RICH Study Area

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
			Obs	Standard	Exceeding	Obs	Exceed	Prop	Obs	Exceed	Prop	Obs	Exceed	Prop	Obs	Exceed	Prop
00070 TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	476	30	0.06	138	7	0.05	169	20	0.12	169	3	0.02			
00076 TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	698	14	0.02	273	0	0.00	220	11	0.05	205	3	0.01			
00299 OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Other-Lo Lim.	4.	3405	106	0.03	1428	76	0.05	889	10	0.01	1088	20	0.02			
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	8519	246	0.03	5093	185	0.04	1845	15	0.01	1581	46	0.03			
00400 PH	Fresh Chronic	9.	6158	148	0.02	2348	62	0.03	1819	26	0.01	1991	60	0.03			
	Marine Chronic	8.5	121	2	0.02	35	1	0.03	50	0	0.00	36	1	0.03			
	Other-Lo Lim.	6.5	6276 &	1170	0.19	2381	308	0.13	1869	476	0.25	2026	386	0.19			
00403 PH, LAB	Fresh Chronic	9.	1253	12	0.01	390	5	0.01	424	5	0.01	439	2	0.00			
00406 PH, FIELD	Other-Lo Lim.	6.5	1253	253	0.20	390	61	0.16	424	120	0.28	439	72	0.16			
	Fresh Chronic	9.	6	0	0.00								6	0	0.00		
	Other-Lo Lim.	6.5	6	6	1.00								6	6	1.00		
00409 ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYS	Other-Lo Lim.	200.	1	0	0.00								1	0	0.00		
00613 NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	567	0	0.00	191	0	0.00	188	0	0.00	188	0	0.00			
00615 NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	3962	7	0.00	1279	2	0.00	1401	3	0.00	1282	2	0.00			
00618 NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	560	0	0.00	186	0	0.00	186	0	0.00	188	0	0.00			
00620 NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	3606	4	0.00	1197	0	0.00	1284	3	0.00	1125	1	0.00			
00630 NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	502	2	0.00	133	0	0.00	153	0	0.00	216	2	0.01			
00631 NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	177	0	0.00	77	0	0.00	42	0	0.00	58	0	0.00			
00720 CYANIDE, TOTAL	Fresh Acute	0.022	68	0	0.00	20	0	0.00	16	0	0.00	32	0	0.00			
	Drinking Water	0.2	68	0	0.00	20	0	0.00	16	0	0.00	32	0	0.00			
00940 CHLORIDE, TOTAL IN WATER	Fresh Acute	860.	1543	4	0.00	534	0	0.00	477	1	0.00	532	3	0.01			
00941 CHLORIDE, DISSOLVED IN WATER	Drinking Water	250.	1543	7	0.00	534	0	0.00	477	4	0.01	532	3	0.01			
	Fresh Acute	860.	1	0	0.00								1	0	0.00		
	Drinking Water	250.	1	0	0.00								1	0	0.00		
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1081	0	0.00	352	0	0.00	366	0	0.00	363	0	0.00			
00946 SULFATE, DISSOLVED (AS SO4)	Drinking Water	250.	1	0	0.00								1	0	0.00		
00950 FLUORIDE, DISSOLVED AS F	Drinking Water	4.	93	0	0.00	37	0	0.00	21	0	0.00	35	0	0.00			
00951 FLUORIDE, TOTAL AS F	Drinking Water	4.	268	0	0.00	54	0	0.00	112	0	0.00	102	0	0.00			
00997 ARSENIC, INORGANIC TOT	Fresh Acute	360.	4	0	0.00								4	0	0.00		
	Drinking Water	50.	4	0	0.00								4	0	0.00		
01000 ARSENIC, DISSOLVED	Fresh Acute	360.	2	0	0.00								2	0	0.00		
	Drinking Water	50.	2	0	0.00								2	0	0.00		
01002 ARSENIC, TOTAL	Fresh Acute	360.	372	0	0.00	76	0	0.00	102	0	0.00	194	0	0.00			
	Drinking Water	50.	372	0	0.00	76	0	0.00	102	0	0.00	194	0	0.00			
01005 BARIUM, DISSOLVED	Drinking Water	2000.	8	0	0.00	6	0	0.00	2	0	0.00						
01007 BARIUM, TOTAL	Drinking Water	2000.	6	1	0.17								4	1	0.25		
01012 BERYLLIUM, TOTAL	Fresh Acute	130.	14	0	0.00	4	0	0.00	6	0	0.00	4	0	0.00			
	Drinking Water	4.	4 &	1	0.25								4	1	0.25		
01025 CADMIUM, DISSOLVED	Fresh Acute	3.9	15 &	1	0.07	8	1	0.13					7	0	0.00		
	Drinking Water	5.	15 &	1	0.07	8	1	0.13					7	0	0.00		
01027 CADMIUM, TOTAL	Fresh Acute	3.9	178 &	16	0.09	57	4	0.07	29	1	0.03	92	11	0.12			
	Drinking Water	5.	178 &	15	0.08	57	4	0.07	29	0	0.00	92	11	0.12			
01030 CHROMIUM, DISSOLVED	Drinking Water	100.	9	0	0.00	6	0	0.00	2	0	0.00	1	0	0.00			
01034 CHROMIUM, TOTAL	Drinking Water	100.	616 &	1	0.00	114	0	0.00	179	0	0.00	323	1	0.00			
01040 COPPER, DISSOLVED	Fresh Acute	18.	22	1	0.05	13	1	0.08	2	0	0.00	7	0	0.00			
	Drinking Water	1300.	22	0	0.00	13	0	0.00	2	0	0.00	7	0	0.00			
01042 COPPER, TOTAL	Fresh Acute	18.	603 &	49	0.08	113	5	0.04	180	11	0.06	310	33	0.11			
	Drinking Water	1300.	604	0	0.00	114	0	0.00	180	0	0.00	310	0	0.00			
01049 LEAD, DISSOLVED	Fresh Acute	82.	22	0	0.00	13	0	0.00	2	0	0.00	7	0	0.00			
	Drinking Water	15.	14 &	0	0.00	7	0	0.00				7	0	0.00			
01051 LEAD, TOTAL	Fresh Acute	82.	562	3	0.01	113	0	0.00	184	0	0.00	265	3	0.01			
	Drinking Water	15.	560 &	74	0.13	113	10	0.09	182	24	0.13	265	40	0.15			
01059 THALLIUM, TOTAL	Fresh Acute	1400.	14	0	0.00	4	0	0.00	6	0	0.00	4	0	0.00			
	Drinking Water	2.	4 &	0	0.00								4	0	0.00		
01065 NICKEL, DISSOLVED	Fresh Acute	1400.	224	0	0.00	18	0	0.00	68	0	0.00	138	0	0.00			
	Drinking Water	100.	224	0	0.00	18	0	0.00	68	0	0.00	138	0	0.00			
01067 NICKEL, TOTAL	Fresh Acute	1400.	230	0	0.00	51	0	0.00	65	0	0.00	114	0	0.00			
	Drinking Water	100.	230	1	0.00	51	0	0.00	65	0	0.00	114	1	0.01			
01077 SILVER, TOTAL	Fresh Acute	4.1	24 &	0	0.00	7	0	0.00	10	0	0.00	7	0	0.00			
	Drinking Water	100.	28	0	0.00	7	0	0.00	10	0	0.00	11	0	0.00			
01090 ZINC, DISSOLVED	Fresh Acute	120.	22	2	0.09	13	2	0.15	2	0	0.00	7	0	0.00			
	Drinking Water	5000.	22	0	0.00	13	0	0.00	2	0	0.00	7	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## EPA Water Quality Criteria Analysis for Entire RICH Study Area

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/01-10/14			10/15-3/15			3/16-6/30			n/a		
						Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
01092 ZINC, TOTAL	Fresh Acute	120.	613	9	0.01	114	4	0.04	181	3	0.02	318	2	0.01			
	Drinking Water	5000.	613	0	0.00	114	0	0.00	181	0	0.00	318	0	0.00			
01097 ANTIMONY, TOTAL	Fresh Acute	88.	4	0	0.00							4	0	0.00			
	Drinking Water	6.	4	0	0.00							4	0	0.00			
01145 SELENIUM, DISSOLVED	Fresh Acute	20.	2	0	0.00				2	0	0.00						
	Drinking Water	50.	2	0	0.00				2	0	0.00						
01147 SELENIUM, TOTAL	Fresh Acute	20.	90	1	0.01	26	1	0.04	31	0	0.00	33	0	0.00			
	Drinking Water	50.	90	0	0.00	26	0	0.00	31	0	0.00	33	0	0.00			
31501 COLIFORM, TOTAL, MEMBRANE FILTER, IMMED.	Other-Hi Lim.	1000.	59	11	0.19	19						17	7	0.41			
31503 COLIFORM, TOT, MEMBRANE FILTR, DELAY. M-END	Other-Hi Lim.	1000.	1	1	1.00							1	1	1.00			
31505 COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	290	171	0.59	143	85	0.59	54	39	0.72	93	47	0.51			
31506 COLIFORM, TOTAL, MPN, CONF. TEST, TUBE C	Other-Hi Lim.	1000.	73	23	0.32	37	10	0.27	16	7	0.44	20	6	0.30			
31614 FECAL COLIFORM, MPN, TUBE CONFIGURATION	Other-Hi Lim.	200.	12	4	0.33							12	4	0.33			
31615 FECAL COLIFORM, MPN	Other-Hi Lim.	200.	1816	1101	0.61	963	595	0.62	330	185	0.56	523	321	0.61			
31616 FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	3573 &	1525	0.43	1096	517	0.47	1320	491	0.37	1157	517	0.45			
31625 FECAL COLIFORM, MF	Other-Hi Lim.	200.	52	27	0.52	12	2	0.17	27	17	0.63	13	8	0.62			
32101 BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	4	0	0.00							4	0	0.00			
32102 CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	4	0	0.00							4	0	0.00			
32103 1,2-DICHLOROETHANE, WHOLE WATER	Fresh Acute	118000.	4	0	0.00							4	0	0.00			
	Drinking Water	5.	4	0	0.00							4	0	0.00			
32104 BROMOFORM, WHOLE WATER	Drinking Water	100.	4	0	0.00							4	0	0.00			
32105 DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	4	0	0.00							4	0	0.00			
32106 CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	4	0	0.00							4	0	0.00			
	Drinking Water	100.	4	0	0.00							4	0	0.00			
34205 ACENAPHTHENE, TOTAL	Fresh Acute	1700.	4	0	0.00							4	0	0.00			
34210 ACRYOLEIN, TOTAL	Fresh Acute	68.	4	0	0.00							4	0	0.00			
34215 ACRYLONITRILE, TOTAL	Fresh Acute	7550.	4	0	0.00							4	0	0.00			
34301 CHLOROBENZENE, TOTAL	Drinking Water	100.	4	0	0.00							4	0	0.00			
34356 ENDOSULFAN, BETA, TOTAL	Fresh Acute	0.22	11 &	0	0.00	1	0	0.00	2	0	0.00	8	0	0.00			
34361 ENDOSULFAN, ALPHA, TOTAL	Fresh Acute	0.22	11 &	0	0.00	1	0	0.00	2	0	0.00	8	0	0.00			
34371 ETHYLBENZENE, TOTAL	Fresh Acute	32000.	4	0	0.00							4	0	0.00			
	Drinking Water	700.	4	0	0.00							4	0	0.00			
34376 FLUORANTHENE, TOTAL	Fresh Acute	3980.	4	0	0.00							4	0	0.00			
34386 HEXACHLOROCYCLOPENTADIENE, TOTAL	Fresh Acute	7.	4	0	0.00							4	0	0.00			
	Drinking Water	50.	4	0	0.00							4	0	0.00			
34396 HEXACHLOROETHANE, TOTAL	Fresh Acute	980.	4	0	0.00							4	0	0.00			
34408 ISOPHORONE, TOTAL	Fresh Acute	117000.	4	0	0.00							4	0	0.00			
34423 METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	4	0	0.00							4	0	0.00			
34447 NITROBENZENE, TOTAL	Fresh Acute	27000.	4	0	0.00							4	0	0.00			
34452 PARACHLOROMETA CRESOL, TOTAL	Fresh Acute	30.	4	0	0.00							4	0	0.00			
34461 PHENANTHRENE, TOTAL	Fresh Acute	30.	4	0	0.00							4	0	0.00			
34475 TETRACHLOROETHYLENE, TOTAL	Fresh Acute	5280.	4	0	0.00							4	0	0.00			
	Drinking Water	5.	4	0	0.00							4	0	0.00			
34501 1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	4	0	0.00							4	0	0.00			
34506 1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	4	0	0.00							4	0	0.00			
34511 1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	4	0	0.00							4	0	0.00			
34536 1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	4	0	0.00							4	0	0.00			
34541 1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	4	0	0.00							4	0	0.00			
34546 TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	4	0	0.00							4	0	0.00			
34551 1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	4	0	0.00							4	0	0.00			
34566 1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	4	0	0.00							4	0	0.00			
34571 1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	4	0	0.00							4	0	0.00			
34586 2-CHLOROPHENOL, TOTAL	Fresh Acute	4380.	4	0	0.00							4	0	0.00			
34601 2,4-DICHLOROPHENOL, TOTAL	Fresh Acute	2020.	4	0	0.00							4	0	0.00			
34606 2,4-DIMETHYLPHENOL, TOTAL	Fresh Acute	2120.	4	0	0.00							4	0	0.00			
34611 2,4-DINITROTOLUENE, TOTAL	Fresh Acute	330.	4	0	0.00							4	0	0.00			
34694 PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	Fresh Acute	10200.	4	0	0.00							4	0	0.00			
34696 NAPHTHALENE, TOTAL	Fresh Acute	2300.	4	0	0.00							4	0	0.00			
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMP	Fresh Acute	20.	34 &	0	0.00	12	0	0.00	12	0	0.00	10	0	0.00			
	Drinking Water	1.	33 &	0	0.00	11	0	0.00	12	0	0.00	10	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

## EPA Water Quality Criteria Analysis for Entire RICH Study Area

Parameter	Std. Type	Std. Value	Total	Exceed	Prop.	7/01-10/14			10/15-3/15			3/16-6/30			n/a			
			Obs	Standard		Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
39100 BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	Fresh Acute	2000.	6	0	0.00					2	0	0.00	4	0	0.00			
	Drinking Water	6.	6	5	0.83					2	2	1.00	4	3	0.75			
39175 VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	2.	4	0	0.00								4	0	0.00			
39180 TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	4	0	0.00								4	0	0.00			
	Drinking Water	5.	4	0	0.00								4	0	0.00			
39300 P,P' DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	33 &	0	0.00	11	0	0.00	12	0	0.00	10	0	0.00				
39310 P,P' DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	33 &	0	0.00	11	0	0.00	12	0	0.00	10	0	0.00				
39320 P,P' DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	34	0	0.00	12	0	0.00	12	0	0.00	10	0	0.00				
39330 ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	56 &	0	0.00	12	0	0.00	19	0	0.00	25	0	0.00				
39340 GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	11 &	0	0.00	1	0	0.00	2	0	0.00	8	0	0.00				
	Drinking Water	0.2	11 &	0	0.00	1	0	0.00	2	0	0.00	8	0	0.00				
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	23	0	0.00	11	0	0.00	10	0	0.00	2	0	0.00				
	Drinking Water	2.	23	0	0.00	11	0	0.00	10	0	0.00	2	0	0.00				
39380 DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	40 &	0	0.00	11	0	0.00	12	0	0.00	17	0	0.00				
39390 ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	33 &	0	0.00	11	0	0.00	12	0	0.00	10	0	0.00				
39400 TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	11 &	0	0.00	1	0	0.00	2	0	0.00	8	0	0.00				
39410 HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	11 &	0	0.00	1	0	0.00	2	0	0.00	8	0	0.00				
39420 HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	11 &	0	0.00	1	0	0.00	2	0	0.00	8	0	0.00				
39480 METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	22	0	0.00	10	0	0.00	10	0	0.00	2	0	0.00				
39630 ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	Drinking Water	3.	25	0	0.00	1	0	0.00	7	0	0.00	17	0	0.00				
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	Fresh Acute	6.	22	0	0.00	10	0	0.00	10	0	0.00	2	0	0.00				
	Drinking Water	1.	22	0	0.00	10	0	0.00	10	0	0.00	2	0	0.00				
39702 HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	4	0	0.00							4	0	0.00				
39730 2,4-D IN WHOLE WATER SAMPLE	Drinking Water	70.	10	0	0.00					2	0	0.00	8	0	0.00			
39760 SILVEX IN WHOLE WATER SAMPLE	Drinking Water	50.	10	0	0.00					2	0	0.00	8	0	0.00			
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	54	19	0.35	42	15	0.36	5	4	0.80	7	0	0.00				
71851 NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	48	0	0.00	16	0	0.00	18	0	0.00	14	0	0.00				
71856 NITRITE NITROGEN, DISSOLVED (AS NO2)	Drinking Water	3.3	2	0	0.00	1	0	0.00	1	0	0.00							
71890 MERCURY, DISSOLVED	Fresh Acute	2.4	22	4	0.18	13	4	0.31	2	0	0.00	7	0	0.00				
	Drinking Water	2.	22	5	0.23	13	5	0.38	2	0	0.00	7	0	0.00				
71900 MERCURY, TOTAL	Fresh Acute	2.4	578 &	2	0.00	121	2	0.02	178	0	0.00	279	0	0.00				
	Drinking Water	2.	578 &	3	0.01	121	3	0.02	178	0	0.00	279	0	0.00				
77093 CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	4	0	0.00							4	0	0.00				
77128 STYRENE, WHOLE WATER	Drinking Water	100.	4	0	0.00							4	0	0.00				
77687 2,4,5-TRICHLOROPHENOL, WHOLE WATER	Fresh Acute	100.	4	0	0.00							4	0	0.00				
82078 TURBIDITY, FIELD	Other-Hi Lim.	50.	41	1	0.02	12	1	0.08	17	0	0.00	12	0	0.00				
82079 TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00				

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

**NPS Servicewide Inventory and Monitoring Program Level I**

**Water Quality Parameter Inventory Data Evaluation and Analysis:**

**Missing Level I Groups**

There are STORET Data for Every Level I I&M Parameter Group Within  
the RICH Study Area

**NPS Servicewide Inventory and Monitoring Program Level I**  
**Water Quality Parameter Inventory Data Evaluation and Analysis:**  
**Present Level I Groups**

STORET Data Within the RICH Study Area Exist for These Groups:

		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
Alkalinity						
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS (UEQ/L)	1	1	0	0	1
00410	ALKALINITY, TOTAL (MG/L AS CACO <sub>3</sub> )	1253	965	131	157	47
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	27	0	24	3	12
00435	ACIDITY, TOTAL (MG/L AS CACO <sub>3</sub> )	4	0	3	1	1
00440	BICARBONATE ION (MG/L AS HCO <sub>3</sub> )	68	1	19	48	4
00445	CARBONATE ION (MG/L AS CO <sub>3</sub> )	21	0	17	4	3
		1374	967	194	213	68 (48) <sup>1</sup>
pH		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00400	PH (STANDARD UNITS)	6610	3408	2023	1179	97
00403	PH, LAB (STANDARD UNITS)	1259	1012	95	152	53
00406	PH, FIELD (STANDARD UNITS)	6	6	0	0	6
		7875	4426	2118	1331	156(106) <sup>1</sup>
Conductivity		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	4784	4036	748	0	65
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	1716	1372	318	26	58
00096	SALINITY AT 25 DEGREES C (MG/ML)	1932	1904	28	0	24
00480	SALINITY - PARTS PER THOUSAND	12	0	12	0	8
		8444	7312	1106	26	155 (92) <sup>1</sup>
Dissolved Oxygen		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	3749	3702	47	0	62
00300	OXYGEN, DISSOLVED (MG/L)	8565	969	5948	1648	57
		12314	4671	5995	1648	119(104) <sup>1</sup>
Water Temperature		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12618	4782	6162	1674	114
		12618	4782	6162	1674	114(114) <sup>1</sup>
Flow		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00059	FLOW RATE, INSTANTANEOUS, GALLONS/MINUTE	367	196	171	0	3
00060	FLOW, STREAM, MEAN DAILY CFS	113	0	46	67	2
00061	FLOW, STREAM, INSTANTANEOUS CFS	301	153	148	0	29
00065	STAGE, STREAM (FEET)	3	3	0	0	3
00067	TIDE STAGE CODE	1932	1467	230	235	35
		2716	1819	595	302	72 (62) <sup>1</sup>

<sup>1</sup>Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Clarity/Turbidity	Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00070 TURBIDITY, (JACKSON CANDLE UNITS)	490	309	131	50	26
00076 TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	838	838	0	0	25
00077 TRANSPARENCY, SECCHI DISC (INCHES)	14	0	0	14	4
00078 TRANSPARENCY, SECCHI DISC (METERS)	415	331	84	0	12
00530 RESIDUE, TOTAL NONFILTRABLE (MG/L)	3928	1979	1417	532	47
82078 TURBIDITY, FIELD NEPHELOMETRIC TURBIDITY UNITS NTU	41	41	0	0	4
82079 TURBIDITY, LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	1	1	0	0	1
	5727	3499	1632	596	119 (54) <sup>1</sup>
Nitrate/Nitrogen	Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00600 NITROGEN, TOTAL (MG/L AS N)	143	0	123	20	2
00605 NITROGEN, ORGANIC, TOTAL (MG/L AS N)	114	0	100	14	1
00608 NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	943	906	37	0	11
00610 NITROGEN, AMMONIA, TOTAL (MG/L AS N)	4226	1303	1966	957	64
00618 NITRATE NITROGEN, DISSOLVED (MG/L AS N)	908	884	24	0	4
00620 NITRATE NITROGEN, TOTAL (MG/L AS N)	3613	1221	1502	890	55
00623 NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	24	0	24	0	9
00625 NITROGEN, KJELDAHL, TOTAL (MG/L AS N)	4862	1895	2003	964	69
00630 NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	622	70	478	74	35
00631 NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	245	211	34	0	20
71851 NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	48	1	2	45	3
71856 NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	2	0	2	0	1
	15750	6491	6295	2964	274 (75) <sup>1</sup>
Phosphate/Phosphorus	Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00650 PHOSPHATE, TOTAL (MG/L AS PO4)	51	0	0	51	5
00660 PHOSPHATE, ORTHO (MG/L AS PO4)	76	0	2	74	10
00665 PHOSPHORUS, TOTAL (MG/L AS P)	2802	1905	877	20	49
00666 PHOSPHORUS, DISSOLVED (MG/L AS P)	756	723	33	0	11
00671 PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	2378	1626	752	0	33
70505 PHOSPHORUS, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	2001	0	1130	871	37
70507 PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	2589	593	1123	873	57
	10653	4847	3917	1889	202 (73) <sup>1</sup>
Chlorophyll	Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
32209 CHLOROPHYLL A (UG/L) FLUOROMETRIC CORRECTED	70	6	64	0	12
32210 CHLOROPHYLL A (UG/L) TRICHROMATIC UNCORRECTED	21	2	7	12	5
32211 CHLOROPHYLL A (UG/L) SPECTROPHOTOMETRIC ACID METH.	1	1	0	0	1
32228 CHLOROPHYLL A (MG/M2) PERIPHYTON SPECTRO.	1	0	0	1	1
32230 CHLOROPHYLL A (MG/L)	95	0	79	16	1
	188	9	150	29	20 (18) <sup>1</sup>
Sulfates/Total Dissolved Solids/Hardness	Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00900 HARDNESS, TOTAL (MG/L AS CACO3)	890	834	4	52	26
00945 SULFATE, TOTAL (MG/L AS SO4)	1102	1029	23	50	44
00946 SULFATE, DISSOLVED (MG/L AS SO4)	1	1	0	0	1
70300 RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	160	0	97	63	3
	2153	1864	124	165	74 (50) <sup>1</sup>

<sup>1</sup>Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Bacteria		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
31501	COLIFORM, TOT, MEMBRANE FILTER, IMMEDIATE, M-ENDOMED, 35C	60	0	46	14	1
31503	COLIFORM, TOT, MEMBRANE FILTER, DELAY, M-ENDOMED, 35C	1	0	0	1	1
31505	COLIFORM, TOT, MPN, CONFIRMED TEST, 35C (TUBE 31506)	290	0	6	284	20
31506	COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	100	75	25	0	9
31614	FECAL COLIFORM, MPN, TUBE CONFIGURATION	13	13	0	0	3
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	1816	1786	0	30	40
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5C	3612	888	1864	860	47
31625	FECAL COLIFORM, MF, M-FC, 0.7 UM	55	0	55	0	2
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	143	0	124	19	2
		6090	2762	2120	1208	125 (71) <sup>1</sup>

<sup>1</sup>Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Toxic Elements	Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
01097 ANTIMONY, TOTAL (UG/L AS SB)	4	4	0	0	4
00997 ARSENIC, INORGANIC TOTAL (UG/L AS AS)	4	4	0	0	4
01000 ARSENIC, DISSOLVED (UG/L AS AS)	2	2	0	0	2
01002 ARSENIC, TOTAL (UG/L AS AS)	372	164	148	60	46
01012 BERYLLIUM, TOTAL (UG/L AS BE)	14	14	0	0	8
01025 CADMIUM, DISSOLVED (UG/L AS CD)	22	22	0	0	12
01027 CADMIUM, TOTAL (UG/L AS CD)	426	171	161	94	52
01030 CHROMIUM, DISSOLVED (UG/L AS CR)	9	9	0	0	6
01034 CHROMIUM, TOTAL (UG/L AS CR)	617	172	234	211	53
01040 COPPER, DISSOLVED (UG/L AS CU)	22	22	0	0	12
01042 COPPER, TOTAL (UG/L AS CU)	604	168	232	204	53
01049 LEAD, DISSOLVED (UG/L AS PB)	22	22	0	0	12
01051 LEAD, TOTAL (UG/L AS PB)	562	168	230	164	53
71890 MERCURY, DISSOLVED (UG/L AS HG)	22	22	0	0	12
71900 MERCURY, TOTAL (UG/L AS HG)	581	167	222	192	53
01065 NICKEL, DISSOLVED (UG/L AS NI)	224	8	167	49	41
01067 NICKEL, TOTAL (UG/L AS NI)	230	167	63	0	35
01145 SELENIUM, DISSOLVED (UG/L AS SE)	2	2	0	0	2
01147 SELENIUM, TOTAL (UG/L AS SE)	90	90	0	0	21
01077 SILVER, TOTAL (UG/L AS AG)	28	4	24	0	5
01059 THALLIUM, TOTAL (UG/L AS TL)	14	14	0	0	8
01090 ZINC, DISSOLVED (UG/L AS ZN)	22	22	0	0	12
01092 ZINC, TOTAL (UG/L AS ZN)	613	168	234	211	53
00720 CYANIDE, TOTAL (MG/L AS CN)	68	44	24	0	4
34210 ACRYLIC ACROLEIN, TOTAL (UG/L)	4	4	0	0	4
34215 ACRYLONITRILE, TOTAL (UG/L)	4	4	0	0	4
32104 BROMOFORM, WHOLE WATER, (UG/L)	4	4	0	0	4
32102 CARBON TETRACHLORIDE, WHOLE WATER, (UG/L)	4	4	0	0	4
34301 CHLOROBENZENE, TOTAL (UG/L)	4	4	0	0	4
32105 DIBROMOCHLOROMETHANE, WHOLE WATER, (UG/L)	4	4	0	0	4
34311 CHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
32106 CHLOROFORM, WHOLE WATER (UG/L)	4	4	0	0	4
32101 BROMODICHLOROMETHANE, WHOLE WATER (UG/L)	4	4	0	0	4
34496 1,1-DICHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
32103 1,2-DICHLOROETHANE, WHOLE WATER (UG/L)	4	4	0	0	4
34501 1,1-DICHLOROETHYLENE, TOTAL (UG/L)	4	4	0	0	4
34541 1,2-DICHLOROPROPANE, TOTAL (UG/L)	4	4	0	0	4
34371 ETHYLBENZENE, TOTAL (UG/L)	4	4	0	0	4
34413 METHYL BROMIDE, TOTAL (UG/L)	4	4	0	0	4
34418 METHYL CHLORIDE, TOTAL (UG/L)	4	4	0	0	4
34423 METHYLENE CHLORIDE, TOTAL (UG/L)	4	4	0	0	4
34506 1,1,1-TRICHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
34475 TETRACHLOROETHYLENE, TOTAL (UG/L)	4	4	0	0	4
34546 TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER (UG/L)	4	4	0	0	4
34516 1,1,2,2-TETRACHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
34511 1,1,2-TRICHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
39180 TRICHLOROETHYLENE-WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4
39175 VINYL CHLORIDE-WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4
34586 2-CHLOROPHENOL, TOTAL (UG/L)	4	4	0	0	4
34601 2,4-DICHLOROPHENOL, TOTAL (UG/L)	4	4	0	0	4
34606 2,4-DIMETHYLPHENOL, TOTAL (UG/L)	4	4	0	0	4
39920 DNOC IN WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4
34616 2,4-DINITROPHENOL, TOTAL (UG/L)	4	4	0	0	4
34591 2-NITROPHENOL, TOTAL (UG/L)	4	4	0	0	4
34646 4-NITROPHENOL, TOTAL (UG/L)	4	4	0	0	4

<sup>1</sup>Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Toxic Elements - Continued ...	Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
34452 PARACHLOROMETA CRESOL, TOTAL (UG/L)	4	4	0	0	4
39032 PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE (UG/L)	38	16	22	0	16
34694 PHENOL(C6H5OH)-SINGLE COMPOUND TOTAL (UG/L)	4	4	0	0	4
34621 2,4,6-TRICHLOROPHENOL, TOTAL (UG/L)	4	4	0	0	4
34205 ACENAPHTHENE, TOTAL (UG/L)	4	4	0	0	4
34200 ACENAPHTHYLENE, TOTAL (UG/L)	4	4	0	0	4
34220 ANTHRACENE, TOTAL (UG/L)	4	4	0	0	4
34273 BIS (2-CHLOROETHYL) ETHER, TOTAL (UG/L)	4	4	0	0	4
39100 BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER (UG/L)	6	6	0	0	5
34636 4-BROMOPHENYL PHENYL ETHER, TOTAL (UG/L)	4	4	0	0	4
34292 N-BUTYL BENZYL PHTHALATE, WHOLE WATER (UG/L)	4	4	0	0	4
34581 2-CHLORONAPHTHALENE, TOTAL (UG/L)	4	4	0	0	4
34641 4-CHLOROPHENYL PHENYL ETHER, TOTAL (UG/L)	4	4	0	0	4
34320 CHRYSENE, TOTAL (UG/L)	4	4	0	0	4
34556 1,2,5,6-DIBENZANTHRACENE, TOTAL (UG/L)	4	4	0	0	4
34536 1,2-DICHLOROBENZENE, TOTAL (UG/L)	4	4	0	0	4
34566 1,3-DICHLOROBENZENE, TOTAL (UG/L)	4	4	0	0	4
34571 1,4-DICHLOROBENZENE, TOTAL (UG/L)	4	4	0	0	4
34631 3,3'-DICHLOROBENZIDINE, TOTAL (UG/L)	4	4	0	0	4
34336 DIETHYL PHTHALATE, TOTAL (UG/L)	4	4	0	0	4
34341 DIMETHYL PHTHALATE, TOTAL (UG/L)	4	4	0	0	4
39110 DI-N-BUTYL PHTHALATE, WHOLE WATER (UG/L)	4	4	0	0	4
34611 2,4-DINITROTOLUENE, TOTAL (UG/L)	4	4	0	0	4
34626 2,6-DINITROTOLUENE, TOTAL (UG/L)	4	4	0	0	4
34596 DI-N-OCTYL PHTHALATE, TOTAL (UG/L)	4	4	0	0	4
34376 FLUORANTHENE, TOTAL (UG/L)	4	4	0	0	4
34381 FLUORENE, TOTAL (UG/L)	4	4	0	0	4
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	22	0	22	0	10
39702 HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4
34386 HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	4	4	0	0	4
34396 HEXACHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
34408 ISOPHORONE, TOTAL (UG/L)	4	4	0	0	4
34696 NAPHTHALENE, TOTAL (UG/L)	4	4	0	0	4
34447 NITROBENZENE, TOTAL (UG/L)	4	4	0	0	4
34438 N-NITROSODIMETHYLAMINE, TOTAL (UG/L)	4	4	0	0	4
34428 N-NITROSODI-N-PROPYLAMINE, TOTAL (UG/L)	4	4	0	0	4
34433 N-NITROSODIPHENYLAMINE, TOTAL (UG/L)	4	4	0	0	4
34461 PHENANTHRENE, TOTAL (UG/L)	4	4	0	0	4
34469 PYRENE, TOTAL (UG/L)	4	4	0	0	4
34551 1,2,4-TRICHLOROBENZENE, TOTAL (UG/L)	4	4	0	0	4
39330 ALDRIN IN WHOLE WATER SAMPLE (UG/L)	57	12	45	0	19
39337 ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	12	12	0	0	11
39338 BETA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	12	12	0	0	11
39340 GAMMA-BHC(LINDANE), WHOLE WATER (UG/L)	12	12	0	0	11
34259 DELTA BENZENE HEXACHLORIDE, TOTAL (UG/L)	12	12	0	0	11
39350 CHLORDANE(TECH MIX & METABS), WHOLE WATER (UG/L)	23	1	22	0	11
39300 P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12
39320 P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12
39310 P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12
39380 DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	41	12	22	7	16
34361 ENDOSULFAN, ALPHA, TOTAL (UG/L)	12	12	0	0	11
34356 ENDOSULFAN, BETA, TOTAL (UG/L)	12	12	0	0	11
34351 ENDOSULFAN SULFATE, TOTAL (UG/L)	12	12	0	0	11
39390 ENDRIN IN WHOLE WATER SAMPLE (UG/L)	34	12	22	0	12
39410 HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11

<sup>1</sup>Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Toxic Elements - Continued ...		Total Obs.	01/01/85 to 12/15/98	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11
34671	PCB - 1016, TOTAL (UG/L)	12	12	0	0	11
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	12	12	0	0	11
		5361	2209	1960	1192	1136 (56) <sup>1</sup>

<sup>1</sup>Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

**NPS Servicewide Inventory and Monitoring Program Level I**  
**Water Quality Parameter Inventory Data Evaluation and Analysis:**  
**Park Summary: Level I Group Currentness and Distribution**

Parameter Group	Total Obs.	Obs. Since 1985	% Obs. Since 1985	Stations Measuring This Group	% of Total Stations Measuring This Group	Obs. Per Station Measuring This Group	Period of Record For This Group	Observations Per Year of Period of Record
Alkalinity	1374	967	70.4	48	35.6	28.6	07/30/45-12/15/98	25.7
pH	7875	4426	56.2	106	78.5	74.3	07/30/45-12/15/98	147.5
Conductivity	8444	7312	86.6	92	68.1	91.8	10/06/52-12/15/98	182.8
Dissolved Oxygen	12314	4671	37.9	104	77.0	118.4	10/12/67-12/15/98	394.9
Water Temperature	12618	4782	37.9	114	84.4	110.7	08/19/64-12/15/98	367.6
Flow	2716	1819	67.0	62	45.9	43.8	07/30/45-12/15/98	50.9
Clarity/Turbidity	5727	3499	61.1	54	40.0	106.1	08/20/64-12/15/98	166.9
Nitrate/Nitrogen	15750	6491	41.2	75	55.6	210.0	07/30/45-12/15/98	295.1
Phosphate/Phosphorus	10653	4847	45.5	73	54.1	145.9	10/07/68-12/15/98	352.9
Chlorophyll	188	9	4.8	18	13.3	10.4	10/19/71-08/08/94	8.2
Sulfates/Total Dissolved Solids/Hardness	2153	1864	86.6	50	37.0	43.1	07/30/45-12/15/98	40.3
Bacteria	6090	2762	45.4	71	52.6	85.8	09/20/67-12/15/98	194.9
Toxic Elements	5361	2209	41.2	56	41.5	95.7	07/15/69-10/21/97	189.6

**Water Quality Observations**  
**Outside STORET Edit Criteria for RICH**

**(Disposition: X = Discarded, Blank = Retained)**

NPS Station ID	Parameter		Date	Time	Parameter Value	Agency	STORET Station ID	Disposition
RICH0001	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	740529	1330	26.0000000	21VASWCB	2-XHF000.38	
RICH0005	00300	OXYGEN, DISSOLVED MG/L	870608	1105	45.7000000	21VASWCB	2-ASH001.26	X
RICH0006	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	790109	1445	40.0000000	21VASWCB	2-ASH003.50	X
RICH0018	32230	CHLOROPHYLL A (MG/L)	711019	1315	8.3000000	1113JAWQ	JAMES J06	X
RICH0018	32230	CHLOROPHYLL A (MG/L)	711102	1100	2.3000000	1113JAWQ	JAMES J06	X
RICH0018	32230	CHLOROPHYLL A (MG/L)	711102	1148	8.3000000	1113JAWQ	JAMES J06	X
RICH0019	00300	OXYGEN, DISSOLVED MG/L	870609	1355	52.4000000	21VASWCB	2-PCT002.46	X
RICH0027	00405	CARBON DIOXIDE (MG/L AS CO2)	740626	0915	137.0000000	112WRD	02038700	
RICH0027	00405	CARBON DIOXIDE (MG/L AS CO2)	760603	1000	243.0000000	112WRD	02038700	
RICH0027	00405	CARBON DIOXIDE (MG/L AS CO2)	780907	1030	124.0000000	112WRD	02038700	
RICH0032	00400	PH (STANDARD UNITS)	851002	1420	737.0000000	21VASWCB	2-JMS099.30	X
RICH0032	00665	PHOSPHORUS, TOTAL (MG/L AS P)	931202	1505	12.0000000	21VASWCB	2-JMS099.30	
RICH0036	00300	OXYGEN, DISSOLVED MG/L	870609	1410	43.6000000	21VASWCB	2-KSL000.18	X
RICH0039	01007	BARIUM, TOTAL (UG/L AS BA)	960503	0945	4540.0000000	11NPSWRD	RICH_DAA_LCP-01	
RICH0050	00405	CARBON DIOXIDE (MG/L AS CO2)	761130	1030	149.0000000	112WRD	372516077253101	
RICH0061	00927	MAGNESIUM, TOTAL (MG/L AS MG)	920715	0913	1270.0000000	21VASWCB	2-FOM003.60	
RICH0061	00927	MAGNESIUM, TOTAL (MG/L AS MG)	930121	0904	1170.0000000	21VASWCB	2-FOM003.60	
RICH0065	00300	OXYGEN, DISSOLVED MG/L	870609	1445	46.8000000	21VASWCB	2-FAC000.85	X
RICH0065	00927	MAGNESIUM, TOTAL (MG/L AS MG)	920715	1403	1610.0000000	21VASWCB	2-FAC000.85	
RICH0065	00927	MAGNESIUM, TOTAL (MG/L AS MG)	930121	1612	1740.0000000	21VASWCB	2-FAC000.85	
RICH0066	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	750622	1035	143.0000000	21VASWCB	2-GRK000.05	
RICH0067	00300	OXYGEN, DISSOLVED MG/L	820112	1530	84.0000000	21VASWCB	2-GRK000.57	X
RICH0067	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	820922	1650	200.0000000	21VASWCB	2-GRK000.57	
RICH0069	00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	961022	1500	0.0000000	21VASWCB	2-JMS104.16	X
RICH0070	32230	CHLOROPHYLL A (MG/L)	711019	1250	3.0000000	1113JAWQ	JAMES J04	X
RICH0070	32230	CHLOROPHYLL A (MG/L)	711102	1030	9.8000000	1113JAWQ	JAMES J04	X
RICH0070	32230	CHLOROPHYLL A (MG/L)	711102	1217	9.0000000	1113JAWQ	JAMES J04	X
RICH0080	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	760615	1430	37.2000000	21VASWCB	2-GRK001.73	
RICH0092	32230	CHLOROPHYLL A (MG/L)	711019	1235	3.0000000	1113JAWQ	JAMES J03	X
RICH0092	32230	CHLOROPHYLL A (MG/L)	711102	1015	6.0000000	1113JAWQ	JAMES J03	X
RICH0092	32230	CHLOROPHYLL A (MG/L)	711102	1230	9.0000000	1113JAWQ	JAMES J03	X
RICH0094	00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	940201	1700	4.6000000	21VASWCB	2-ALM000.42	X
RICH0094	00300	OXYGEN, DISSOLVED MG/L	870609	1635	51.7000000	21VASWCB	2-ALM000.42	X
RICH0094	00400	PH (STANDARD UNITS)	831222	1400	17.0000000	21VASWCB	2-ALM000.42	X
RICH0094	00403	PH, LAB, STANDARD UNITS SU	720926	1545	12.3000000	21VASWCB	2-ALM000.42	
RICH0094	00403	PH, LAB, STANDARD UNITS SU	721026	1115	12.2000000	21VASWCB	2-ALM000.42	
RICH0094	00403	PH, LAB, STANDARD UNITS SU	731019	1510	12.2000000	21VASWCB	2-ALM000.42	
RICH0094	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	720926	1545	1695.0000000	21VASWCB	2-ALM000.42	
RICH0094	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	721026	1115	1252.0000000	21VASWCB	2-ALM000.42	
RICH0094	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	731019	1510	1320.0000000	21VASWCB	2-ALM000.42	
RICH0101	00095	SPECIFIC CONDUCTANCE (UMHOS/CM 25C)	890221	1100	0.1000000	21VASWCB	2-RDD000.76	X

**Water Quality Observations  
Outside STORET Edit Criteria for RICH**

**(Disposition: X = Discarded, Blank = Retained)**

NPS Station ID	Parameter	Date	Time	Parameter Value	Agency	STORET Station ID	Disposition
RICH0101	00300 OXYGEN, DISSOLVED MG/L	870609	1135	55.7000000	21VASWCB	2-RDD000.76	X
RICH0102	00300 OXYGEN, DISSOLVED MG/L	810908	1430	70.1000000	21VASWCB	2-GIL000.42	X
RICH0102	00300 OXYGEN, DISSOLVED MG/L	870609	1415	57.3000000	21VASWCB	2-GIL000.42	X
RICH0102	00400 PH (STANDARD UNITS)	870609	1415	0.7400000	21VASWCB	2-GIL000.42	X
RICH0116	00080 COLOR (PLATINUM-COBALT UNITS)	920423	1530	630.0000000	21VASWCB	2-JMS110.30	
RICH0116	00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	920421	0900	0.2000000	21VASWCB	2-JMS110.30	X
RICH0116	00094 SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	920901	0845	0.3000000	21VASWCB	2-JMS110.30	X
RICH0116	00403 PH, LAB, STANDARD UNITS SU	951019	1745	75.1000000	21VASWCB	2-JMS110.30	X
RICH0116	00927 MAGNESIUM, TOTAL (MG/L AS MG)	921102	0840	5000.0000000	21VASWCB	2-JMS110.30	
RICH0122	32230 CHLOROPHYLL A (MG/L)	711019		3.8000000	1113JAWQ	JAMES J02	X
RICH0122	32230 CHLOROPHYLL A (MG/L)	711102	1050	5.3000000	1113JAWQ	JAMES J02	X
RICH0122	32230 CHLOROPHYLL A (MG/L)	711102		3.8000000	1113JAWQ	JAMES J02	X
RICH0134	00010 TEMPERATURE, WATER (DEGREES CENTIGRADE)	830127	1100	-3.5000000	21VASWCB	2-CHK062.57	
RICH0134	00927 MAGNESIUM, TOTAL (MG/L AS MG)	920902	1339	2640.0000000	21VASWCB	2-CHK062.57	
RICH0134	00927 MAGNESIUM, TOTAL (MG/L AS MG)	921228	1056	2070.0000000	21VASWCB	2-CHK062.57	
RICH0134	00927 MAGNESIUM, TOTAL (MG/L AS MG)	930303	1422	2320.0000000	21VASWCB	2-CHK062.57	
RICH0146	00927 MAGNESIUM, TOTAL (MG/L AS MG)	920902	0929	3110.0000000	21VASWCB	2-UPM003.53	
RICH0146	00927 MAGNESIUM, TOTAL (MG/L AS MG)	921202	0935	2700.0000000	21VASWCB	2-UPM003.53	
RICH0146	00927 MAGNESIUM, TOTAL (MG/L AS MG)	930303	1010	3220.0000000	21VASWCB	2-UPM003.53	

## **APPENDICES**



**Appendix A**  
**Computer Files Transmitted With**  
**Park Baseline Water Quality Data Inventory and Analysis**

Computer disk(s) accompanying this report include up to seven (depending on the presence or absence of certain data elements) compressed (ZIP) files containing digital copies of nearly all the tables, figures, and other materials used to produce this report. To decompress these files, you must use the commonly available shareware program PKUNZIP. The command to type at the DOS prompt is:

**PKUNZIP -E COMPRESS.ZIP FILENAME.EXT**

where COMPRESS.ZIP is the name of one of the seven compressed (ZIP) files listed below and FILENAME.EXT is the name of the file you wish to extract. If you want to decompress all of the files in COMPRESS.ZIP, simply omit the FILENAME.EXT. To obtain a listing of all the files compressed into a particular ZIP file, type the following:

**PKUNZIP -V COMPRESS.ZIP |MORE**

where COMPRESS.ZIP is the name of one of the seven compressed ZIP files listed below. If a ZIP file spans multiple disks, use the last disk of the series (span) when obtaining a listing of all the files compressed into a particular ZIP file. Once you see the file you wish to obtain, substitute this file name for FILENAME.EXT in the first command line above to extract and decompress this particular file.

Included on one of the disk(s) accompanying this report is a program named PRINTZIP. This program will decompress ZIP files which don't span multiple disks and print certain files to a Hewlett-Packard (or compatible) Laser Printer. To use PRINTZIP, however, you must still have a copy of PKUNZIP in a directory listed in your path or in the same directory as the PRINTZIP program. PRINTZIP provides an easy, menu-driven interface for using PKUNZIP to decompress files and then send them to the printer. PRINTZIP allows you to send individual files, groups of files, or all files to the printer. PRINTZIP will not work with ZIP files that span multiple disks.

The following compressed (ZIP) files are included on the disk(s) accompanying this report:

(1)      **RICHTABS.ZIP**

This compressed file contains all the tables presented in the report. The files compressed into this file include:

- (a) RICHSITE.DOC      - Descriptive listing of select fields from the industrial facilities discharges, drinking water intakes, and EPA-USGS stream gages databases.
- (b) RICHAGNC.DOC      - Contacts for agencies whose data were retrieved within the study area.
- (c) RICHAGNQ.DOC      - Number of stations, observations, and parameters retrieved by agency code within the study area and park.

- (d) RICHOV0.DOC      - Overview of park and retrieved data.
- (e) RICHOV1.DOC      - Station period of record table.
- (f) RICHOV2.DOC      - Parameter period of record table.
- (g) RICHOV3.DOC      - Station/parameter period of record table.
- (h) RICHINV.DOC      - Station by station descriptive statistics over the entire period of record and comparison against EPA Water Quality Criteria for each station.
- (i) RICHSEAN.DOC      - Seasonal and annual water quality descriptive statistics at stations with water quality data meeting the default seasonal and annual criteria.
- (j) RICHEPAS.DOC      - EPA Water Quality Criteria comparison for data at all stations combined within the study area.
- (k) RICHIDEA.DOC      - Comparison of downloaded STORET data with NPS Servicewide Inventory and Monitoring Program "Level I" water quality parameters.
- (l) RICHBAD.DOC      - Water quality observation values that were outside the range of one of 190 STORET edit criteria and were either discarded or retained.

All these compressed document files are in ASCII format and contain printer codes appropriate to Hewlett-Packard (or compatible) Laser Printers. While at the DOS prompt, any of these document files may be printed directly to a Hewlett-Packard (or compatible) Laser Printer by using the PRINT command. For example, if the document RICHOV1.DOC is in the subdirectory C:\WATER, you could type: PRINT C:\WATER\RICHOV1.DOC. This will print the file to your local or networked Hewlett-Packard (or compatible) Laser Printer attached to parallel port one (LPT1:). Alternatively, you can use the PRINTZIP program to decompress and print any of these files provided the ZIP file doesn't span multiple disks. These ASCII files can also be imported into word-processed documents, but the printer codes will then have to be removed.

(2) RICHFIGS.ZIP

This compressed file contains graphics files for all the statistical figures (time series plots; annual box and whiskers plots; seasonal box and whiskers plots) in the report in two different formats: Computer Graphic Metafile (CGM) and Hewlett-Packard Printer Control Language (PCL). The files are named with the last three digits of the Station Name followed by the five digit STORET code. The file name extension begins with either a 1 (time series), 2 (annual), or 3 (seasonal) and then either GM for CGM or CL for PCL. For example, 00100300.2GM would denote the file contains an annual box and whiskers plot in CGM format for parameter 00300 (dissolved oxygen) at station RICH0001. While at the DOS prompt, any PCL file can be printed directly to a Hewlett-Packard (or compatible) Laser Printer by using the COPY command. For example, if the graphic 00100300.2CL (an annual box and whiskers plot of parameter 00300, dissolved oxygen, at station RICH0001) is in the subdirectory C:\WATER, you would type: COPY C:\WATER\00100300.2CL LPT1: /B. This will print the file to your local or networked Hewlett-Packard (or compatible) Laser Printer attached to parallel port one (LPT1:). The /B is necessary because the PCL file is in a binary format. Alternatively, you can use the PRINTZIP program to decompress and print any of the PCL files provided the ZIP file doesn't span multiple disks. The CGM files can be imported and/or edited in most graphics packages, including WordPerfect.

(3) RICHPARM.ZIP

This file compresses RICHPARM.DBF which contains all the actual values (raw data) of all the water quality data downloaded from STORET and summarized in the report. The detailed database structure for this file is contained in Appendix B.

(4) RICH SITE.ZIP

This compressed file contains up to five geo-referenced, DBASE III+ compatible site (point location) files documenting the location in the study area of water quality monitoring stations, industrial facilities discharges, drinking water intakes, water gages, and water impoundments. These files include:

- (a) RICHWQ.DBF
  - All water quality monitoring station locations within the project's study area downloaded from STORET.
- (b) RICHIFD.DBF
  - All municipal and industrial facility discharges within the project's study area downloaded from the IFD database.
- (c) RICHDRIN.DBF
  - All drinking water intakes within the project's study area downloaded from the DRINKS database.
- (d) RICHGAGE.DBF
  - All water gages within the project's study area downloaded from the GAGES database.
- (e) RICHDAMS.DBF
  - All water impoundments within the project's study area downloaded from the DAMS database.

The absence of any of these files indicates that none of the particular sites were found within the study area. Detailed database structures for each of these files are contained in Appendix B.

(5) RICHMISC.ZIP

This compressed file contains a variety of graphic and document files that are contained in the report. They are grouped into this miscellaneous compressed (ZIP) file because they don't fit neatly into any of the other compressed files. The files contained in this compressed file include:

- (a) RICHEXEC.DOC
  - WordPerfect Ver. 5.1 copy of the Executive Summary in the report.
- (b) RICHTOC.DOC
  - WordPerfect Ver. 5.1 copy of the report's Table of Contents.
- (c) INTRO.DOC
  - WordPerfect Ver. 5.1 copy of all the text in the report from the Introduction through the Interpretive Guide to Water Quality Results.
- (d) APPENDIX.DOC
  - WordPerfect Ver. 5.1 copy of all the Appendices in the report.
- (e) RICHREGI
  - PCL and CLP (Windows Clipboard) copies of map displaying the regional location of the park and study area.
- (f) RICHWQ
  - PCL and CLP (Windows Clipboard) copies of park maps displaying water quality station locations within the park's study area. If, due to scaling and aesthetic concerns, multiple maps were needed, these files will have alphabetically ordered suffixes (RICHWQA, RICHWQB, RICHWQC, etc.) and the index map name will end with an ampersand (&).

- (g) RICHIDG
  - PCL and CLP (Windows Clipboard) copies of park maps displaying locations of industrial facilities discharges, drinking water intakes, and stream gages within the park's study area. If, due to scaling and aesthetic concerns, multiple maps were needed, these files will have alphabetically ordered suffixes (RICHIDGA, RICHIDGB, RICHIDGC, etc.) and the index map name will end with an ampersand (&). If no industrial facilities discharges, drinking water intakes, water gages, or water impoundments exist within the park's study area, these files will not be in the compressed (ZIP) file.
  
- (h) RICHSEHY
  - PCL and CLP (Windows Clipboard) copies of the hydrographs or other materials used by WRD staff as the basis for a first attempt at a seasonal analysis of the park's water quality data.

Other materials may also be included in this miscellaneous compressed (ZIP) file as warranted by conditions at the park. As with RICHFIGS.ZIP and RICHTABS.ZIP, you can use the PRINTZIP program to print any of the PCL files in RICHMISC.ZIP provided the ZIP file doesn't span multiple disks. You should not, however, use PRINTZIP to print the WordPerfect document files. The CLP (Windows Clipboard) files can be imported (pasted) and/or edited in most Windows-based word processors and graphics packages.

(6) RICHRF3.ZIP

This compressed file contains the Environmental Protection Agency's River Reach File Ver. 3.0 provisional data for the USGS catalog unit(s) encompassing the study area. The attribute data exist in both ASCII and DBASE III+ format, while the geographic traces exist in ASCII format. This compressed file contains four files for each catalog unit that touches the study area. Catalog units are identified by unique 8-character numeric names which identify the region, subregion, accounting unit, and catalog unit. Examples (your 8-character numeric names will be different) of the file types included in this compressed file are:

- (a) 12345678.RF3
  - ASCII formatted attribute file from the River Reach File for all hydrographic traces within the catalog unit.
  
- (b) 12345678.DBF
  - DBASE III+ formatted attribute file from the River Reach File for all hydrographic traces within the catalog unit.
  
- (c) 12345678.TRC
  - ASCII formatted geographic file from the River Reach File containing digital, geo-referenced descriptions of all hydrographic traces within the catalog unit at a scale of 1:100,000 suitable for import into a geographic information system.
  
- (d) 12345678.CUB
  - ASCII formatted geographic file from the River Reach File containing a digital, geo-referenced description of the catalog unit boundary suitable for import into a geographic information system.

Detailed database structures for RF3-related files are contained in Appendix B.

(7) RICHWQMW.ZIP

Between 2000 and 2002, all Baseline Water Quality Data Inventory and Analysis Reports were compiled or re-compiled in Microsoft Word 2000 (Ver. 9.0) format. This complete, digital version of the report will be made available through various means, including the Internet. Although the reports can be opened in Microsoft Word 1997 (Ver. 8.0), the time series and annual and seasonal box-plots may not be centered appropriately on a page due to discrepancies with how Word 2000 formats pictures and how Word 1997 formatted pictures. Consequently, Word 2000 is the recommended software for viewing the report. Prior to printing the report from Word, be sure to enable “Print Text as Graphics” or “Print True Type Font as Graphics” in the Printer Properties. This ensures a more faithful reproduction of the maps included in the Word document.

The Microsoft Word version of the Baseline Water Quality Data Inventory and Analysis Report may differ slightly from the original analog version. Reports issued during 1994-1996 didn't have as many “bells-and-whistles” as subsequent reports. In compiling digital Microsoft Word versions of these earlier reports, attempts were made to bring these 1994-1996 reports up to the current standard wherever feasible and practicable. Unfortunately, some changes were not feasible or practicable. For example, water quality criteria screens were added or modified over time when newer criteria became available. The digital Microsoft Word version of Appendix F presents the latest criteria screening parameters and values. Some of these parameters and/or values may not have been screened against in the EPA water quality criteria analyses for each station and the entire study area in the 1994-1996 analog versions of the report. Similarly, the Introduction, Methodology, and Interpretive Guide to Water Quality Results may mention certain features that aren't included in the 1994-1996 reports. Additionally, to prepare a Microsoft Word version of this report, data were processed through different versions of software than used originally. Consequently, some results presented in the Overview and Executive Summary may differ slightly from those presented in the analog report (eg. # of In Park and Longer Term Stations).



## Appendix B

### Water Quality Database File Structures

The following table provides the DBASE III+ database field structure for all the water quality parameter data downloaded from STORET. This data will allow parks or other interested parties to replicate the statistical analyses and graphics contained in this report; perform more sophisticated analyses; or to establish a baseline park water quality database.

<b><u>Parameter Data File: RICHPARM.DBF in RICHPARM.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
NPSSTATID	1	8	8	NPS Station ID (NPS park code + 4 digit sequence number)
BEGDATE	9	14	6	Measurement Start Date [yymmdd]
BEGTIME	15	18	4	Measurement Start Time [hhmm]
PARMCODE	19	23	5	STORET Parameter Code
PARMVALU	24	39	16.7	Parameter Value
REMARK	40	40	1	Parameter Remark Value
A=Value is Mean of 2 or More Determinations				
B=Results Based Upon Colony Counts Outside Acceptable Range				
C=Value Calculated				
D=Field Measurement				
E=Extra Sample Taken in Compositing Process				
F=Female Species				
G=Maximum of 2 or More Determinations				
H=Based on Field Kit Determination				
I=Value is Less Than Practical Quantitation Limit and Greater Than or Equal to the Method Detection Limit				
J=Estimated, Not the Result of Analytic Measurement				
K=Off-scale Low, Actual Value Not Known, But Known to be Less Than Value Shown				
L=Off-scale High, Actual Value Not Known, But Known to be Greater Than Value Shown				

<b>Parameter Data File: RICHPARM.DBF in RICHPARM.ZIP</b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
				M=Presence Verified, But Not Quantified, Below Quantification Limit; For Species, Male; For Oxygen Reduction Potential, Indicates a Negative Value
				N=Presumptive Evidence of Presence
				O=Analysis Lost
				P=Too Numerous to Count
				Q=Exceeded Normal Holding Time
				R=Significant Rain in Last 48 Hours
				S=Laboratory test
				T=Less Than Detection Criteria
				U=Analyzed For But Not Detected, Value is Detection Limit For Process Used; If Species, Undetermined
				V=Analyte was Detected in Sample and Method Blank
				W=Less Than Lowest Value Reportable Under Remark "T"
				X=Quasi Vertically-Integrated Sample
				Y=Analysis of Unpreserved Sample
				Z=Too Many Colonies Were Present to Count (TNCC), Value Represents Filtration Value
				=\$=Calculated By Retrieval Software
MEDIA	41	46	6	Sample Media
DEPTH	47	55	9.3	Depth of Sample [in feet]
ENDDATE	56	61	6	Measurement End Date [yyymmdd] [all composite samples]
ENDTIME	62	65	4	Measurement End Time [hhmm] [all composite samples]
SAMPTYPE	66	69	4	Type of Sample ["sophisticated" composite samples]
				C=Continuous Collection
				G=Collection of Individual Grab Samples
				GNxx=xx is the Number of Individual Grab Samples
				B=N/A

<b><u>Parameter Data File: RICHPARM.DBF in RICHPARM.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
COMPTYPE	70	70	1	Composite Value Type ["sophisticated" composite samples]
				A=Average
				H=Maximum
				L=Minimum
				N=Number of Observations
				#=Number of Observations
				S=Standard Deviation
				U=Sum of Squares
				V=Variance
				C=Coefficient of Error
				X=Coefficient of Variance
				E=Skewness
				F=Kurtosis
				Z=Number of Observations That Exceed an Established Limit
				%=Precision
				\$/=Accuracy
				B=N/A
				D=Indicates Replicate Sample
COMPST	71	71	1	Composite Space/Time Indicator
				S=Space
				T=Time
				B=Space and Time
				F=Flow Proportional
				1-9=Replicate Number

Note: DBASE III+ record lengths will be one greater than the last stop column displayed (71 here) because DBASE III+ reserves the first space/column of every record for a deletion flag. Hence, DBASE III+ will display a record length of 72 for this database.

The following table provides the DBASE III+ database field structure for all the water quality station locations downloaded from STORET. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

<b>Water Quality Station Data File: RICHWQ.DBF in RICHSITE.ZIP</b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
NPSSTATID	1	8	8	NPS Station ID (NPS park code + 4 digit sequence number)
AGENCY	9	16	8	Agency Code of Station Owner
STORIDP	17	31	15	STORET Primary Station Code
STORIDS1	32	43	12	STORET First Secondary Station Code
STORIDS2	44	55	12	STORET Second Secondary Station Code
STORIDS3	56	65	10	STORET Third Secondary Station Code
LATITUDE	66	73	8	Station Latitude [degrees:minutes:seconds]
LONGITUDE	74	82	9	Station Longitude [degrees:minutes:seconds]
LAT	83	93	11.6	Station Latitude [decimal degrees, (-) below equator]
LON	94	104	11.6	Station Longitude [decimal degrees, (-) western hemisphere]
LLPREC	105	105	1	Latitude/Longitude Precision Code
RMI	106	329	224	River Mile Index
STATLOC	330	377	48	Station Location Description
CNTYCODE	378	382	5	FIPS State/County Code
STNAME	383	398	16	State Name
CNTYNAME	399	418	20	County Name
HYDUNIT	419	426	8	Hydrologic Unit Code (MAJ/MIN/SUB = Catalog Unit)
MAJBASN	427	450	24	Major Basin Name
MINBASN	451	490	40	Minor Basin Name
STATTYPE	491	550	60	Station Type
STORDATE	551	556	6	Date Station was Stored in STORET
RF1INDEX	557	567	11	RF1 Reach Number Location [2]
RF1MILE	568	575	8.3	Mile Point on RF1 Reach [2]
RF1LOC	576	578	3	Indicates the Location as ON or OFF RF1 Reach [2]
RF1DIST	579	584	6.2	Distance From RF1 Reach

<b>Water Quality Station Data File: RICHWQ.DBF in RICHSITE.ZIP</b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
RF3INDEX	585	601	17	RF3 Reach Number Location [3]
RF3MILE	602	607	6.2	Mile point on RF3 Reach [3]
RF3LOC	608	610	3	Indicates the Location as ON or OFF RF3 Reach [2]
RF3DIST	611	616	6.2	Distance From RF3 Reach
DEPTH2O	617	620	4	Depth of Water at Station Location [in feet]
ELEV	621	625	5	Station Elevation
ECOREG	626	628	3	ECO Region
H2OBODY	629	678	50	Waterbody ID
AQUIFERS	679	718	40	Aquifer Description
STATDESC1	719	790	72	Station Sentence Description
STATDESC2	791	862	72	Station Sentence Description
STATDESC3	863	934	72	Station Sentence Description
STATDESC4	935	1006	72	Station Sentence Description
STATDESC5	1007	1078	72	Station Sentence Description
STATDESC6	1079	1150	72	Station Sentence Description
STATDESC7	1151	1222	72	Station Sentence Description
STATDESC8	1223	1294	72	Station Sentence Description
STATDESC9	1295	1366	72	Station Sentence Description
STATDESC10	1367	1438	72	Station Sentence Description
STATDESC11	1439	1510	72	Station Sentence Description
STATDESC12	1511	1582	72	Station Sentence Description
STATDESC13	1583	1654	72	Station Sentence Description
STATDESC14	1655	1726	72	Station Sentence Description
STATDESC15	1727	1798	72	Station Sentence Description
STATLOCKED	1799	1799	1	Station Locked (Logical) True/False

The following table provides the DBASE III+ database field structures for the EPA Industrial Facilities Discharge database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

<b><u>Industrial Facilities Discharges File: RICHIFD.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
SITEID	1	9	9	Site Identifier (NPDES Number)
LATITUDE	10	17	8	Facility Latitude (Degrees:Minutes:Seconds)
LONGITUDE	18	26	9	Facility Longitude (Degrees:Minutes:Seconds)
LAT	27	37	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	38	48	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	49	59	11	RF1 Reach Number Location
RF1MILE	60	65	6.2	Mile Point on RF1 Reach
RF1DIST	66	71	6.2	Distance From RF1 Reach
RF3INDEX	72	88	17	RF3 Reach Number Location
RF3MILE	89	94	6.2	Mile Point on RF3 Reach
RF3DIST	95	100	6.2	Distance From RF3 Reach
ADR	101	125	25	Address
BFL	126	132	7.2	Total Direct Combined C&P Flow (1000 GPD)
CCFLG	133	133	1	Coastal County Flag "Y"/"N"/"E"=Estuary
CC1	134	138	5	City Code #1 (EPA Code)
CFL	139	145	7.2	Total Direct Cooling Flow (1000 GPD)
CNC	146	148	3	County Code (FIPS)
CTY	149	168	20	City Name
CZIP	169	177	9	Canadian Zip Code
DNB	178	186	9	Dunn & Bradstreet Number
DNBFLG	187	187	1	Dunn & Bradstreet PCS Source Flag
EGF	188	202	15.4	Flow From Effluent Guidelines (1000 GPD)
EGS	203	208	6	Effluent Guidelines Subcategory
EXPDT	209	216	8	Expiration Date (mm/dd/yy)
E308SN	217	220	4	Effluent Guidelines Survey Number
FAC	221	229	9	SCS Facility Identifier (Cross-Reference)
FDS	230	232	3	Facility Data Source

<b><u>Industrial Facilities Discharges File: RICHIFD.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
FFL	233	239	7.2	Total Facility Flow (1000 GPD)
FHF	240	240	1	Fac. Hit Flag (Reach File) V=Versar Assumed
FLOTYP	241	243	3	I=Blow Down, R=Bottom Ash, S=Fly Ash
FLR	244	250	7.2	Flow Recvd-Industrial (1000 GPD) Permit Data
FRDS	251	259	9	FRDS ID# - XREF To Water Supply
FRW	260	289	30	Facility Receiving Water Name
FS1	290	293	4	Facility SIC Code (From PCS)
FS2	294	297	4	Facility SIC Code #1
FS3	298	301	4	Facility SIC Code #2
FS4	302	305	4	Facility SIC Code #3
FS5	306	309	4	Facility SIC Code #4
FUD	310	317	8	Facility Level Last Date Updated (mm/dd/yy)
IACC	318	318	1	Inactive/Active Indicator ("I" or "A")
ICAT	319	320	2	WQAB Industrial Category
ICAT2	321	322	2	WQAB Industrial Category 2
ICAT3	323	324	2	WQAB Industrial Category 3
IFL	325	331	7	Total Indirect Flow (1000 GPD)
IFT	332	332	1	Illinois Facility Type (A thru Z)
IG1	333	334	2	Facility Industrial Group #1
IG2	335	336	2	Facility Industrial Group #2
IJCN	337	346	10	Canadian Record Identifier
INACT	347	353	7	Inactive/Rescinded P-Based on Permit;A=Actual
INDCNT	354	357	4	Computed Number of Indirect Dischargers
LATLON	358	372	15	Polygon Retrieval Lat/Long.
MAJ	373	373	1	Major-Minor Flag (From PCS)
MAPID	374	377	4	Map Identifier
MJMN	378	381	4	Major/Minor Basin (EPA-STORET)
NAM	382	441	60	Facility Name
NDC	442	444	3	Number of Discharges (Pipes)

<b><u>Industrial Facilities Discharges File: RICHIFD.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
NDSFLO	445	451	7.2	NEEDS Flow (1000 GPD)
NDSIFLO	452	458	7.2	NEEDS Industrial Flow (1000 GPD)
NID	459	462	4	Number of Indirect Dischargers
NPC	463	463	1	NEEDS Pre-Treatment Code "Y"=Yes, "N"=No
NPS	464	464	1	NPDES Facility Source/Status
NSN	465	473	9	NEEDS Survey Number
NTC	474	474	1	NEEDS Treatment Code
OCP	475	480	6	Organic Chemical Producers ID Number
ODESCC	481	481	1	ODES Coastal County "Y"=Yes; "N"=No
OFL	482	488	7.2	Total Non-Direct Other Flow (1000 GPD)
OWN	489	491	3	Ownership Code
PFL	492	498	7.2	Total Direct Process Flow (1000 GPD)
REG	499	500	2	EPA Region
REGKEY	501	504	4	Region Key
RSLOFLO	505	511	7.2	Receiving Stream Low Flow
RSMNFLO	512	518	7.2	Receiving Stream Mean Flow
STA	519	520	2	State Postal Abbreviation
STAID	521	535	15	State Identifier
STC	536	537	2	State Code (FIPS)
STCITY	538	544	7	State/City Code
TFLOW	545	551	7.2	Type Flow (1000 GPD)
UFL	552	558	7.2	Total Direct Undefined Flow (1000 GPD)
XEGS	559	561	3	Effluent Guidelines Subcat Index
XKEY	562	562	1	"1","2","3","4","5","6","7","8","9"
XNME	563	565	3	GLP,DIR,F2C,ENF,CET,LAG,PPB,M85,M86
ZIP	566	570	5	Zip Code

The following table provides the DBASE III+ database field structures for drinking water intakes from the EPA DRINKS database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

<b><u>Drinking Water Intakes File: RICHDRIN.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
SITEID	1	20	20	Site Identifier
LATITUDE	21	28	8	Facility Latitude (Degrees:Minutes:Seconds)
LONGITUDE	29	37	9	Facility Longitude (Degrees:Minutes:Seconds)
LAT	38	48	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	49	59	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	60	70	11	RF1 Reach Number Location
RF1MILE	71	76	6.2	Mile Point on RF1 Reach
RF1DIST	77	82	6.2	Distance From RF1 Reach
RF3INDEX	83	99	17	RF3 Reach Number Location
RF3MILE	100	105	6.2	Mile Point on RF3 Reach
RF3DIST	106	111	6.2	Distance From RF3 Reach
AQCD	112	115	4	Aquifer Code
ASC	116	138	23	STORET Agency/Station Code
AVGD	139	142	4	Average Depth
BUY	143	143	1	Purchase Code
CC1	144	148	5	City Code #1 (EPA Code)
CNC	149	151	3	County Code (FIPS)
CNME	152	166	15	Contact Name
CNN	167	186	20	County Name
CTITLE	187	201	15	Contact Title
CTY	202	221	20	City Name
DUD	222	229	8	Date of Update
FRDS	230	238	9	FRDS ID# - Cross-Reference
GEOAG	239	258	20	Geologic Age
GEOCDE	259	261	3	Geologic Age Code
IDAT	262	269	8	Date (mm/dd/yy)

<b><u>Drinking Water Intakes File: RICHDRIN.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
INTAKET	270	270	1	Type Source G/S/B
INTRVWR	271	285	15	Interviewer
MAXD	286	289	4	Maximum Depth
MILES	290	296	7.2	Miles
MIND	297	300	4	Minimum Depth
NAME	301	320	20	Name
NPD	321	329	9	NPDES# XREF to IFD Database
NWLS	330	332	3	Number of Wells
OWN	333	335	3	Ownership
PAVGF	336	342	7.2	Production Avg. Daily (Gal/Day)
PCTSUP	343	345	3	%Surface / %Ground
PHONE	346	355	10	Telephone Number
PMAXF	356	362	7.2	Production Max. Daily (Gal/Day)
POPSV	363	371	9	Population Served
REG	372	373	2	EPA Region
SHLAT	374	379	6	Sitehelp Latitude (DDMMSS)
SHLNG	380	386	7	Sitehelp Longitude (DDDDMMSS)
SHMILES	387	393	7.2	Sitehelp Miles
SHNME	394	403	10	Sitehelp Source Name
SHPCT	404	410	7.2	Sitehelp Percent of Reach Miles
SRC	411	413	3	Sitehelp Source Code
STA	414	415	2	State Abbreviation
STC	416	417	2	State Code (FIPS)
TUF	418	424	7.2	Total Utility Flow
TYP CDE	425	425	1	Type Code
UHF	426	426	1	Utility Hit Flag (Reach File)
VCDE	427	427	1	Versar Code='V'=>25K; '*'=<25K POPSVD
WFPC	428	428	1	Wellfield Precision Code
WFTYP	429	429	1	Well Type (Cassing,Artesian,Infiltration,etc.)

<b><u>Drinking Water Intakes File: RICHDRIN.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
WUN	430	449	20	Water Utility Name

The following table provides the DBASE III+ database field structures for the Water Gage database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

<b><u>Water Gage File: RICHGAGE.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
SITEID	1	20	20	Site Identifier
LATITUDE	21	28	8	Facility Latitude (DDMMSS)
LONGITUDE	29	37	9	Facility Longitude (DDMMSS)
LAT	38	48	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	49	59	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	60	70	11	RF1 Reach Number Location
RF1MILE	71	76	6.2	Mile Point on RF1 Reach
RF1DIST	77	82	6.2	Distance From RF1 Reach
RF3INDEX	83	99	17	RF3 Reach Number Location
RF3MILE	100	105	6.2	Mile Point on RF3 Reach
RF3DIST	106	111	6.2	Distance From RF3 Reach
JAN	112	118	7.2	Monthly Flow - January
FEB	119	125	7.2	Monthly Flow - February
MAR	126	132	7.2	Monthly Flow - March
APR	133	139	7.2	Monthly Flow - April
MAY	140	146	7.2	Monthly Flow - May
JUN	147	153	7.2	Monthly Flow - June
JUL	154	160	7.2	Monthly Flow - July
AUG	161	167	7.2	Monthly Flow - August
SEP	168	174	7.2	Monthly Flow - September
OCT	175	181	7.2	Monthly Flow - October
NOV	182	188	7.2	Monthly Flow - November
DEC	189	195	7.2	Monthly Flow - December
RGN	196	197	2	Region Code
AREA	198	204	7.2	Drainage Area (SQ.MI.)
DUD	205	212	8	Date of Update

<b><u>Water Gage File: RICHGAGE.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
FBCF	213	213	1	Flag - Basic Characteristic File ('Y')
FDFF	214	214	1	Flag - Daily Flows File ('Y')
FQMINV	215	224	10	IHS Pt. Files Index
GHF	225	225	1	Hit Flag (Reach File)
ICDE	226	226	1	Integrity Code
LFVEL	227	233	7.2	Low Flow Velocity
METHOD	234	236	3	Calculation Method Code
MFVEL	237	243	7.2	Mean Flow Velocity
MNFLO	244	250	7.2	USGS Mean Annual Flow
NME	251	298	48	Station Name
SHLAT	299	304	6	Sitehelp Latitude (DDMMSS)
SHLNG	305	311	7	Sitehelp Longitude (DDDDMMSS)
SHMILES	312	318	7.2	Sitehelp Miles
SHNME	319	328	10	Sitehelp Source Name
SHPCT	329	335	7.2	Sitehelp Percent of Reach Miles
SITE	336	337	2	Site Location
SRC	338	340	3	Sitehelp Source Code
STCTY	341	345	5	State/County Numeric Code
SVTEN	346	352	7.2	USGS 7-10 Year Flow
BEG_WYR	353	356	4	Beginning Water Year
END_WYR	357	359	4	Ending Water Year
ELEV	361	368	8.2	Elevation (Feet)
WELL_DP	369	376	8.2	Well Depth (Feet)

The following table provides the DBASE III+ database field structures for the Water Impoundment database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

<b><u>Water Impoundment File: RICHDAMS.DBF in RICHSITE.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
SITEID	1	7	7	Site Identifier
SOURCE	8	10	3	Source of Data
ST1	11	12	2	Primary State Code Abbreviation
STCTY1	13	17	5	State/County Numeric Code
NAME	18	47	30	Official Name of Dam
LATITUDE	48	53	6	Facility Latitude (DDMMSS)
LONGITUDE	54	60	7	Facility Longitude (DDMMSS)
LAT	61	70	10.6	Facility Latitude (decimal degrees, (-) below equator)
LON	71	81	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
INME	82	111	30	Impoundment Name
RNME	112	139	28	River, Stream, or Tributary Name on Which Dam Built
CUSEGMI	140	149	10	Catalog Unit, Segment, and Segment Length
REGN	150	151	2	Water Resources Council Region Code
RGBSN	152	155	4	Water Resources Region/Basin Code
CU	156	163	8	Catalog Unit
SEG	164	166	3	Reach Segment of Dam
SEGL	167	171	5.2	Reach Segment Length
PURP	172	172	1	Major Purpose of Dam
I=Irrigation				
H=Hydroelectric				
N=Navigation				
S=Water Supply				
R=Recreation				
P=Stock/Farm Pond				
D=Debris Control				
F=Flood Control				

<b>Water Impoundment File: RICHDAMS.DBF in RICH SITE.ZIP</b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
				O=Other
FRF3	173	189	17	RF3 Reach Number Location
FRF3MI	190	194	5	Mile Point on RF3 Reach
PURKEY	195	195	1	Purpose Key
PUR2	196	196	1	Purpose of Dam 2 (See Above)
PUR3	197	197	1	Purpose of Dam 3 (See Above)
PUR4	198	198	1	Purpose of Dam 4 (See Above)
PUR5	199	199	1	Purpose of Dam 5 (See Above)
PUR6	200	200	1	Purpose of Dam 6 (See Above)
PUR7	201	201	1	Purpose of Dam 7 (See Above)
PUR8	202	202	1	Purpose of Dam 8 (See Above)
PUR9	203	203	1	Purpose of Dam 9 (See Above)
PUR10	204	204	1	Purpose of Dam 10 (See Above)
TYPDAM	205	206	2	Major Dam Portion Type
				RE=Earth
				VA=Vaulted Arch
				CD=Buttress
				PG=Gravity
				ER=Rockfill
				MV=Multi-Arch
				OT=Other
YRCMP	207	210	4	Year Dam Completed
SHGT	211	214	4	Structural Height (Feet)
HHGT	215	218	4	Hydraulic Height (Feet)
VNORM	219	236	8	Normal Storage of Impoundment (Acre-Feet)
VMAX	227	234	8	Maximum Storage of Impoundment (Acre-Feet)
LCRST	235	239	5	Crest Length of Dam (Feet)
TSPL	240	240	1	Spillway Type
				C=Controlled

<b>Water Impoundment File: RICHDAMS.DBF in RICHSITE.ZIP</b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
				U=Uncontrolled
				N=None
				X=Unknown
WSPL	241	244	4	Dam Spillway Width (Feet)
QMAX	245	251	7	Maximum Spillway Discharge (CFS)
PINS	252	258	7.2	Quantity of Installed Power (Megawatts)
PPRO	259	265	7.2	Quantity of Proposed Power (Megawatts)
LOCK	266	266	1	Number of Navigational Locks
OWNR	267	290	24	Name of Impoundment Owner
PFOWN	291	291	1	Ownership Code
				N=Non-Federal
				G=Federal Government Agency
				C=Corps of Engineers
				X=Unknown
FEDR	292	292	1	Federally Regulated (Y=Yes, N=No, X=Unknown)
FLND	293	293	1	Private Dam on Federal Land (Y=Yes, N=No, X=Unknown)
SCSA	294	294	1	Type of Soil Conservation Service Assistance
				N=No Assistance
				T=Technical Assistance
				F=Financial Assistance
				B=Both Technical and Financial Assistance
				X=Unknown
DHAZ	295	295	1	Degree of Downstream Hazard
				1=High (More than a Few Lives Lost; Excessive Economic Loss)
				2=Significant (A Few Lives Lost; Appreciable Economic Loss)
				3=Low (No Lives Expected Lost; Minimal Economic Loss)
DCITY	296	319	24	Nearest Downstream City

<b>Water Impoundment File: RICHDAMS.DBF in RICHSITE.ZIP</b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
POP	320	326	7	Population of Downstream City
DMILE	327	331	5.2	Distance of Downstream City From Dam (Miles)
RET	332	342	11.2	Retention Coefficient (Dimensionless)
MIX	343	353	11.2	Mixing Coefficient (Dimensionless)
SAREA	354	361	8	Surface Area of Impoundment (Acres)
SAFLG	362	362	1	Surface Area Flag (C=Calc., M=Measured, O=Other)
ILNTH	363	367	5	Length of Impoundment (Feet)
ILFLG	368	368	1	Impoundment Length Flag (C=Calc., M=Measured, O=Other)
UPKEY	369	374	6	Update Key (YYMMDD)

The following table provides the ASCII and DBASE III+ database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) attributes. The actual numeric file names will vary depending on the catalog unit(s). This information can be readily incorporated into the park's Geographic Information System.

<b><u>RF3 Structure File: 12345678.RF3 and 12345678.DBF in RICHRF3.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
CATUNIT	1	8	8	Cataloging Unit (CU)
SEGM	9	12	4	Segment Number (SEG)
MI	13	17	5.2	Mile Point (MI)
UPMI	18	22	5.2	Upstream Mile Pt.
SEQNO	23	33	11.6	Hydro Sequence No.
RFLAG	34	34	1	Reach Flag (0,1)
OWFLAG	35	35	1	Open Water Flag (0,1)
TFLAG	36	36	1	Terminal Flag (0,1)
SFLAG	37	37	1	Start Flag (0,1)
RCHTYPE	38	38	1	Reach Type Code
LEV	39	40	2	Stream Level
JUNC	41	42	2	Level of Downstream Reach
DIVERGENCE	43	43	1	Divergence Code
STARTCU	44	51	8	Start CU
STRTSG	52	55	4	Start SEG
STOPCU	56	63	8	Stop CU
STOPSG	64	67	4	Stop SEG
USDIR	68	68	1	Upstream Direction
TERMID	69	73	5	Terminal Stream ID
TRMBLV	74	74	1	Terminal Base Level
PNAME	75	104	30	Primary Name
PNMCD	105	115	11	Primary Name Code
CNAME	116	145	30	Complement Name
CNMCD	146	156	11	Complement Name Code

<b><u>RF3 Structure File: 12345678.RF3 and 12345678.DBF in RICHRF3.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
OWNAME	157	186	30	Open Water Name
OWNMCD	187	197	11	Open Water Name Code
DSCU	198	205	8	Downstream CU
DSSEG	206	209	4	Downstream SEG
DSMI	210	214	5.2	Downstream MI
CCU	215	222	8	Complement CU
CSEG	223	226	4	Complement SEG
CMILE	227	231	5.2	Complement MI
CDIR	232	232	1	Complement Direction
ULCU	233	240	8	Upstream Left CU
ULSEG	241	244	4	Upstream Left SEG
ULMI	245	249	5.2	Upstream Left MI
URCU	250	257	8	Upstream Right CU
URSEG	258	261	4	Upstream Right SEG
URMI	262	266	5.2	Upstream Right MI
SEGL	267	272	6.2	Reach Length (Miles)
RFORGFLAG	273	273	1	RF Origin flag(1,2,3)
ALTPNMCD	274	281	8	Alt. Primary Name Code
ALTOWNMC	282	289	8	Alt. OW Name Code
DLAT	290	297	8.4	Downstream Latitude
DLONG	298	305	8.4	Downstream Longitude
ULAT	306	313	8.4	Upstream Latitude
ULONG	314	321	8.4	Upstream Longitude
MINLAT	322	329	8.4	Minimum Latitude
MINLONG	330	337	8.4	Minimum Longitude
MAXLAT	338	345	8.4	Maximum Latitude
MAXLONG	346	353	8.4	Maximum Longitude
NDLGREC	354	357	4	No. of DLG Records
LL1KEY1	358	367	10	Starting DLG LL Key1

<b><u>RF3 Structure File: 12345678.RF3 and 12345678.DBF in RICHRF3.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
LL2KEY1	368	377	10	Ending DLG LL Key1
LL1KEY2	378	387	10	Starting DLG LL Key2
LL2KEY2	388	497	10	Ending DLG LL Key2
LL1KEY3	398	407	10	Starting DLG LL Key3
LL2KEY3	408	417	10	Ending DLG LL Key3
LL1KEY4	418	427	10	Starting DLG LL Key4
LL2KEY4	428	437	10	Ending DLG LL Key4
LL1KEY5	438	447	10	Starting DLG LL Key5
LL2KEY5	448	457	10	Ending DLG LL Key5
LL1KEY6	458	467	10	Starting DLG LL Key6
LL2KEY6	468	477	10	Ending DLG LL Key6
LL1KEY7	478	487	10	Starting DLG LL Key7
LL2KEY7	488	597	10	Ending DLG LL Key7
LL1KEY8	498	507	10	Starting DLG LL Key8
LL2KEY8	508	517	10	Ending DLG LL Key8
LL1KEY9	518	527	10	Starting DLG LL Key9
LL2KEY9	528	537	10	Ending DLG LL Key9
LL1KEY10	538	547	10	Start DLG LL Key 10
LL2KEY10	548	557	10	Ending DLG LL Key10
LN1AT2	558	561	4	DLG Line Attr. 1
LN2AT2	562	565	4	DLG Line Attr. 2
AREA1	566	569	4	DLG Area ID 1
AREA2	570	573	4	DLG Area ID 2
AR1AT2	574	577	4	DLG Area Attribute
AR1AT4	578	581	4	DLG Area Attribute
AR2AT2	582	585	4	DLG Area Attribute
AR2AT4	586	589	4	DLG Area Attribute
UPDATE1	590	595	6	Update Date #1 (mmddyy)
UPDTCD1	596	603	8	Update Type Code #1

<b><u>RF3 Structure File: 12345678.RF3 and 12345678.DBF in RICHRF3.ZIP</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
UPDTSRC1	604	611	8	Update Source #1
UPDATE2	612	617	6	Update Date #2 (mmddyy)
UPDTCD2	618	625	8	Update Type Code#2
UPDTSRC2	626	633	8	Update Source #2
UPDATE3	634	639	6	Update Date #3 (mmddyy)
UPDTCD3	640	647	8	Update Type Code #3
UPDTSRC3	648	655	8	Update Source #3
DIVCU	656	663	8	Divergent CU
DIVSEG	664	667	4	Divergent SEG
DIVMILE	668	672	5.2	Divergent MI
DLGID	673	678	6	DLG Number Special Use For Internal State Codes
FILLER	678	685	7	Filler: Future Use

**Note:** The structure for the .DBF file varies slightly from the RF3 structure displayed here in that the fields UPDATE1, UPDATE2, and UPDATE3 have a width of 8 and the last two fields, DLGID and FILLER, have been replaced with a field named ID of length 17. This ID field combines the CATUNIT, SEGM, and MI fields.

The following table provides the ASCII database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) traces. The actual numeric file names will vary depending on the catalog unit(s). This file contains the actual hydrographic network and is suitable for conversion into a variety of Geographic Information System formats.

<u><b>RF3 Trace File: 12345678.TRC in RICHRF3.ZIP</b></u>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
(Header Record)				
CATUNIT	1	8	8	Cataloging Unit
SEGM	9	12	4	Segment Number
MI	13	17	5.2	Mile Point
NPTS	18	21	4	Number of Lat/Lon Coordinates
(Coordinate Record)				
LATITUDE	1	8	8.4	Latitude in Decimal
LONGITUDE	9	16	8.4	Longitude in Decimal
FILLER	17	21	5	

The following table provides the ASCII database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) catalog unit boundary file. The actual numeric file names will vary depending on the catalog unit(s). This file contains the actual catalog unit boundary and is suitable for conversion into a variety of Geographic Information System formats.

<b><u>Catalog Unit Boundary File: 12345678.CUB in RICHRF3.ZIP</u></b>	
First Line = Catalog Unit Number (8 Characters)	
Subsequent Lines:	
L=DDMMSS,L=DDDDMMSS,L=DDMMSS,L=DDDDMMSS,L=DDMMSS,L=DDDDMMSS, ...	
Example:	
02070010	
L=391259,L=0770809,L=391220,L=0770749,L=391147,L=0770715,L=391120,L=0770633,	
L=391058,L=0770535,L=391042,L=0770520,L=391016,L=0770427,L=390948,L=0770416,	
L=390526,L=0765331,L=390500,L=0765149,L=390456,L=0765139,L=390357,L=0765123,	
...	
L=390744,L=0771007,L=390826,L=0771022,L=390910,L=0771022,L=390950,L=0771003,	
L=391107,L=0770922,	
There can be as many as four latitude/longitude pairs per line.	

The following table provides the DBASE III+ database field structure of the Water Resources Division's "encyclopedia" file that documents the minimum and maximum parameter values found and the park(s) where they occurred. This file is intended for Water Resources Division internal use, but will be available to anyone upon request after Baseline Water Quality Data Inventory and Analysis reports have been completed for all parks.

<b><u>Encyclopedia File: WRD File For Internal Use Only</u></b>				
<b>Field Name</b>	<b>Start</b>	<b>Stop</b>	<b>Length</b>	<b>Field Description</b>
PARM	1	5	5	STORET Parameter Code
PARMNAME	6	45	40	Parameter Name
MINVAL	46	61	16.7	Minimum Value
MINVALPARK	62	65	4	Park Unit with Minimum Value
MAXVAL	66	71	16.7	Maximum Value
MAXVALPARK	72	75	4	Park Unit with Maximum Value

## Appendix C

### STORET Water Quality Control/Edit Checking

The following table provides the high and low values used by STORET since November 1983 for 190 common water quality parameters to screen or error check data. Data entered into STORET prior to November 1983, however, were not subjected to this edit/bounds check. Additionally, data from the USGS WATSTORE system that is loaded into STORET is never subjected to these edit criteria and agencies entering data in STORET can override these edit criteria to enter data values that fall outside a range. As a consequence, all data downloaded from STORET for the purposes of this project were filtered through these edit criteria to document values outside the generally accepted ranges. Decisions were then made on a case-by-case basis to retain or discard obviously incorrect data. Refer to the Water Quality Observations Outside STORET Edit Criteria section of the Interpretive Guide To Water Quality Results chapter for more information on this subject.

<b>STORET Code</b>	<b>STORET Parameter Description</b>	<b>High Value</b>	<b>Low Value</b>
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	37.0	-2.0
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	98.0	31.0
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	52.0	-40.0
00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	125.0	-40.0
00026	TOXICS-IDENTIFY DATA COLLECTION BY EPA DIRECTIVE	1990.9	1977.0
00032	CLOUD COVER (PERCENT)	101.0	0.0
00035	WIND VELOCITY (MILES PER HOUR)	85.0	0.0
00036	WIND DIRECTION IN DEGREES FROM TRUE N (CLOCKWISE)	361.0	0.0
00045	PRECIPITATION, TOTAL (INCHES PER DAY)	15.0	0.0
00070	TURBIDITY, (JACKSON CANDLE UNITS)	1500.0	0.0
00074	TURBIDITY, TRANSMISSOMETER, PERCENT TRANSMISSION	101.0	0.0
00075	TURBIDITY, HELLIGE (PPM AS SILICON DIOXIDE)	500.0	0.0
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	1000.0	0.0
00077	TRANSPARENCY, SECCHI DISC (INCHES)	600.0	0.0
00080	COLOR (PLATINUM-COBALT UNITS)	500.0	0.0
00081	COLOR, APPARENT(UNFILTERED SAMPLE) PLAT-COB UNITS	500.0	0.0
00085	ODOR (THRESHOLD NUMBER AT ROOM TEMPERATURE)	250.0	0.0
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	60000.0	1.0
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	60000.0	1.0
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	30.0	0.0

<b>STORET Code</b>	<b>STORET Parameter Description</b>	<b>High Value</b>	<b>Low Value</b>
00300	OXYGEN, DISSOLVED (MG/L)	30.0	0.0
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION%	200.0	0.0
00310	BOD, 5 DAY, 20 DEG C (MG/L)	150.0	0.0
00335	COD, .025N K2CR2O7 (MG/L)	1000.0	0.0
00340	COD, .25N K2CR2O7 (MG/L)	1000.0	0.0
00365	CHLORINE DEMAND, 15 MINUTE (MG/L)	15.0	0.0
00400	PH (STANDARD UNITS)	12.0	0.9
00403	PH, LAB, STANDARD UNITS, (STANDARD UNITS)	12.0	0.9
00405	CARBON DIOXIDE (MG/L AS CO2)	100.0	0.0
00406	PH, FIELD (STANDARD UNITS)	12.0	0.9
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	1000.0	0.0
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	750.0	0.0
00435	ACIDITY, TOTAL (MG/L AS CACO3)	1000.0	0.0
00436	ACIDITY, MINERAL (METHYL ORANGE) (MG/L AS CACO3)	1000.0	0.0
00437	ACIDITY, CO2 (PHENOLPHTHALEIN) (MG/L AS CACO3)	750.0	0.0
00440	BICARBONATE ION (MG/L AS HCO3)	450.0	0.0
00445	CARBONATE ION (MG/L AS CO3)	100.0	0.0
00480	SALINITY - PARTS PER THOUSAND	40.0	0.0
00500	RESIDUE, TOTAL (MG/L)	15000.0	0.0
00505	RESIDUE, TOTAL VOLATILE (MG/L)	10000.0	0.0
00510	RESIDUE, TOTAL FIXED (MG/L)	10000.0	0.0
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C), (MG/L)	20000.0	0.0
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	10000.0	0.0
00525	RESIDUE, FIXED FILTRABLE (MG/L)	10000.0	0.0
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10000.0	0.0
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10000.0	0.0
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	10000.0	0.0
00545	RESIDUE, SETTLEABLE (ML/L)	1000.0	0.0
00546	RESIDUE, SETTLEABLE (MG/L)	1000.0	0.0

<b>STORET Code</b>	<b>STORET Parameter Description</b>	<b>High Value</b>	<b>Low Value</b>
00550	OIL & GREASE (SOXHLET EXTRACTION) TOTAL,REC., (MG/L)	250.0	0.0
00600	NITROGEN, TOTAL (MG/L AS N)	100.0	0.0
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	15.0	0.0
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	25.0	0.0
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	20.0	0.0
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	5.0	0.0
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	50.0	0.0
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	50.0	0.0
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	55.0	0.0
00635	NITROGEN, AMMONIA & ORG., TOTAL 1 DET (MG/L AS N)	70.0	0.0
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	30.0	0.0
00653	PHOSPHATE, TOTAL SOLUBLE (MG/L)	30.0	0.0
00655	PHOSPHATE, POLY (MG/L AS PO4)	30.0	0.0
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	30.0	0.0
00665	PHOSPHORUS, TOTAL (MG/L AS P)	10.0	0.0
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	10.0	0.0
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	100.0	0.0
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	100.0	0.0
00685	CARBON, TOTAL INORGANIC (MG/L AS C)	100.0	0.0
00690	CARBON, TOTAL (MG/L AS C)	150.0	0.0
00720	CYANIDE, TOTAL (MG/L AS CN)	10.0	0.0
00745	SULFIDE, TOTAL (MG/L AS S)	1500.0	0.0
00746	SULFIDE, DISSOLVED (MG/L AS S)	1500.0	0.0
00760	SULFITE WASTE LIQUOR, PEARL BENSON INDEX (MG/L)	150.0	0.0
00900	HARDNESS, TOTAL (MG/L AS CACO3)	5000.0	0.0
00910	CALCIUM (MG/L AS CACO3)	3000.0	0.0
00915	CALCIUM, DISSOLVED (MG/L AS CA)	1000.0	0.0
00916	CALCIUM, TOTAL (MG/L AS CA)	1000.0	0.0
00920	MAGNESIUM (MG/L AS CACO3)	3000.0	0.0

<b>STORET Code</b>	<b>STORET Parameter Description</b>	<b>High Value</b>	<b>Low Value</b>
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	1000.0	0.0
00927	MAGNESIUM, TOTAL (MG/L AS MG)	1000.0	0.0
00929	SODIUM, TOTAL (MG/L AS NA)	5000.0	0.0
00930	SODIUM, DISSOLVED (MG/L AS NA)	5000.0	0.0
00931	SODIUM ADSORPTION RATIO	50.0	0.0
00935	POTASSIUM, DISSOLVED (MG/L AS K)	175.0	0.0
00937	POTASSIUM, TOTAL MG/L AS K)	175.0	0.0
00940	CHLORIDE, TOTAL IN WATER, (MG/L)	22000.0	0.0
00945	SULFATE, TOTAL (MG/L AS SO4)	2500.0	0.0
00946	SULFATE, DISSOLVED (MG/L AS SO4)	2500.0	0.0
00950	FLUORIDE, DISSOLVED (MG/L AS F)	15.0	0.0
00951	FLUORIDE, TOTAL (MG/L AS F)	15.0	0.0
00955	SILICA, DISSOLVED (MG/L AS SI02)	2000.0	0.0
00956	SILICA, TOTAL (MG/L AS SI02)	2000.0	0.0
01000	ARSENIC, DISSOLVED (UG/L AS AS)	5000.0	0.0
01002	ARSENIC, TOTAL (UG/L AS AS)	5000.0	0.0
01005	BARIUM, DISSOLVED (UG/L AS BA)	2000.0	0.0
01007	BARIUM, TOTAL (UG/L AS BA)	2000.0	0.0
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	2000.0	0.0
01012	BERYLLIUM, TOTAL (UG/L AS BE)	2000.0	0.0
01020	BORON, DISSOLVED (UG/L AS B)	5000.0	0.0
01022	BORON, TOTAL (UG/L AS B)	5000.0	0.0
01025	CADMIUM, DISSOLVED (UG/L AS CD)	500.0	0.0
01027	CADMIUM, TOTAL (UG/L AS CD)	500.0	0.0
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	2000.0	0.0
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	2000.0	0.0
01033	CHROMIUM, TRI-VAL (UG/L AS CR)	2000.0	0.0
01034	CHROMIUM, TOTAL (UG/L AS CR)	2000.0	0.0
01040	COPPER, DISSOLVED (UG/L AS CU)	2000.0	0.0

<b>STORET Code</b>	<b>STORET Parameter Description</b>	<b>High Value</b>	<b>Low Value</b>
01042	COPPER, TOTAL (UG/L AS CU)	5000.0	0.0
01045	IRON, TOTAL (UG/L AS FE)	56000.0	0.0
01046	IRON, DISSOLVED (UG/L AS FE)	56000.0	0.0
01047	IRON, FERROUS (UG/L AS FE)	56000.0	0.0
01049	LEAD, DISSOLVED (UG/L AS PB)	1000.0	0.0
01051	LEAD, TOTAL (UG/L AS PB)	1000.0	0.0
01055	MANGANESE, TOTAL (UG/L AS MN)	5000.0	0.0
01056	MANGANESE, DISSOLVED (UG/L AS MN)	5000.0	0.0
01065	NICKEL, DISSOLVED (UG/L AS NI)	2000.0	0.0
01067	NICKEL, TOTAL (UG/L AS NI)	2000.0	0.0
01075	SILVER, DISSOLVED (UG/L AS AG)	5000.0	0.0
01077	SILVER, TOTAL (UG/L AS AG)	5000.0	0.0
01090	ZINC, DISSOLVED (UG/L AS ZN)	25000.0	0.0
01092	ZINC, TOTAL (UG/L AS ZN)	25000.0	0.0
01105	ALUMINUM, TOTAL (UG/L AS AL)	20000.0	0.0
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	20000.0	0.0
01145	SELENIUM, DISSOLVED (UG/L AS SE)	100.0	0.0
01501	ALPHA, TOTAL	200.0	0.0
01503	ALPHA, DISSOLVED	75.0	0.0
01505	ALPHA, SUSPENDED	150.0	0.0
03501	BETA, TOTAL	3500.0	0.0
03503	BETA, DISSOLVED	3000.0	0.0
03505	BETA, SUSPENDED	1500.0	0.0
09503	RADIUM 226, DISSOLVED	500.0	0.0
13501	STRONTIUM 90, TOTAL	500.0	0.0
22703	URANIUM, NATURAL, DISSOLVED	500.0	0.0
31501	COLIFORM, TOT, MEMBRANE FILTER, IMMED.M-ENDO MED, 35C	24000000.0	0.0
31502	COLIFORM, TOTAL, 10/ML	24000000.0	0.0
31503	COLIFORM, TOT, MEMBR FILTER, DELAYED,M-ENDO MED, 35C	24000000.0	0.0

<b>STORET Code</b>	<b>STORET Parameter Description</b>	<b>High Value</b>	<b>Low Value</b>
31504	COLIFORM, TOT, MEMBR FILTER, IMMED, LES ENDO AGAR, 35C	24000000.0	0.0
31613	FECAL COLIFORM, MEMBR FILTER, M-FC AGAR, 44.5C, 24HR	10000000.0	0.0
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	10000000.0	0.0
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5C	10000000.0	0.0
31672	FECAL STREPTOCOCCI, PLATE COUNT M-ENTER AGAR, 35C 48HR	500000.0	0.0
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	500000.0	0.0
31677	FECAL STREPTOCOCCI, MPN, AD-EVA, 35C (TUBE 31678)	500000.0	0.0
31679	FECAL STREPTOCOCCI, MF M-ENTEROCOCCUS AGAR, 35C, 48H	500000.0	0.0
31749	PLATE COUNT, TOTAL, TPC AGAR, 20C, 48 HRS	99999999.0	0.0
31751	PLATE COUNT, TOTAL, TPC AGAR, 35C, 24 HRS	99999999.0	0.0
32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	500.0	0.0
32211	CHLOROPHYLL-A UG/L SPECTROPHOTOMETRIC ACID. METH.	750.0	0.0
32212	CHLOROPHYLL-B UG/L TRICHROMATIC UNCORRECTED	1000.0	0.0
32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	200.0	0.0
32217	CHLOROPHYLL A UG/L FLUOROMETRIC UNCORRECTED	500.0	0.0
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	200.0	0.0
32219	PHEOPHYTIN RATIO(OD 663)SPECTRO,BEFORE/AFTER ACID	2.0	0.0
32221	CHLOROPHYLL A, % OF(PHEOPHYTIN A+CHL A),SPEC-ACID.	101.0	0.0
32230	CHLOROPHYLL A (MG/L)	0.5	0.0
32231	CHLOROPHYLL B (MG/L)	0.8	0.0
32232	CHLOROPHYLL C (MG/L)	0.2	0.0
32234	CHLOROPHYLL, TOTAL (A+B+C) (MG/L)	1.0	0.0
32270	CHLOROFORM EXTRACTABLES TOTAL IN MG PER LITER	5.0	0.0
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	1500.0	0.0
38260	METHYLENE BLUE ACTIVE SUBST. (DETERGENTS, ETC.)	10.0	0.0
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39340	GAMMA-BHC(LINDANE), WHOLE WATER, (UG/L)	20.0	0.0
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATER, (UG/L)	20.0	0.0
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0

<b>STORET Code</b>	<b>STORET Parameter Description</b>	<b>High Value</b>	<b>Low Value</b>
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39530	MALATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39540	PARATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39782	LINDANE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	5.0	0.0
60050	ALGAE, TOTAL (CELLS/ML)	700000.0	0.0
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	4000.0	0.0
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	10.0	0.0
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10.0	0.0
71850	NITRATE NITROGEN, TOTAL (MG/L AS NO3)	65.0	0.0
71886	PHOSPHORUS, TOTAL, AS PO4 - (MG/L)	30.0	0.0
71890	MERCURY, DISSOLVED (UG/L AS HG)	10.0	0.0
71895	MERCURY, SUSPENDED (UG/L AS HG)	10.0	0.0
71900	MERCURY, TOTAL (UG/L AS HG)	10.0	0.0
74010	IRON, TOTAL (MG/L AS FE)	56000.0	0.0



**Appendix D**  
**STORET Administrative Parameters**

<b>STORET Code</b>	<b>Description of STORET Administrative Parameters</b>
00022	LENGTH OF EXPOSURE OF SAMPLE OR TEST - DAYS
00026	TOXICS-IDENTIFY DATA COLLECTION BY EPA DIRECTIVE
00027	CODE NO FOR AGENCY COLLECTING SAMPLE
00028	CODE NO FOR AGENCY ANALYZING SAMPLE
00029	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE
00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION
00073	SAMPLE LOC CODE DEFINED BY THERMAL STRUCT & DEPTH
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI
00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)
00116	INTENSIVE SURVEY IDENTIFICATION NUMBER
00145	TOTAL PRODUCTION OF PRODUCT MANUFACTURED TONS/DAY
01273	TOTAL ACID PRIORITY POLLUTANTS MG/L
01274	TOTAL BASE-NEUTRAL PRIORITY POLLUTANTS MG/L
01275	TOTAL VOLATILE PRIORITY POLLUTANTS MG/L
01365	ANALYSIS DATE (DIOXIN) (YYMMDD)
04177	SAMPLE STABILIZATION, RECOVERY TEST CODE
04178	FIELD PROTOCOL(CONFDNCE ASSIGNED FIELD SAMPLE) CODE
04179	SAMPLE STATION LOCKED CODE
04180	CONDITION OF STATION SITE CODE
04181	LABORATORY QA/QC PLAN CONFIDENCE CODE
04182	SAMPLE TYPE CODE
04183	SAMPLE REMARKS CODE
30333	BAG MESH SIZE, BEDLOAD SAMPLER, MM
34772	NPDES NUMBER, CROSS REFERENCE CODE
34785	GAGE TYPE, METHOD CODE

<b>STORET Code</b>	<b>Description of STORET Administrative Parameters</b>
45575	GC MAKE AND MODEL INFORMATION CODE
45576	GC DETECTOR TYPE CODE
45577	GC COLUMN TYPE CODE
45580	METHOD OF ANALYSIS CODE
45581	LABORATORY LOCATION CODE
46107	SAMPLE LOCATION CODE (TREATMENT PLANT OPERATION)
46390	TOXICITY CHARACTERISTIC LEACHING PROCEDURE P OR F
46396	PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS YES OR NO
46397	PROCESS TO FURTHER REDUCE PATHOGENS YES OR NO
47001	PERMIT EXPIRATION DATE (JULIAN CALENDAR)
47044	OBSERVATIONS,WASTE SITE-SEVERITY OF PROBLEMS CODE
47460	SUBSAMPLE - DECIMAL FRACTION OF WHOLE NUMBER
47477	COMPOSITION AND/OR DISPOSITION OF CATCH NUM CODE
70231	CURRENT DIRECTION (DEGREES FROM DOWNSTREAM FLOW)
71999	SAMPLE PURPOSE CODE
72032	NUMBER OF SPILLWAY GATES OPEN
73672	DATE OF ANALYSIS YYMMDD
73673	DATE OF EXTRACTION YYMMDD
74031	GRANT, PROJECT COST ELIGIBLE FOR CONSTRUCTION
74032	GRANT, AMOUNT OF PL 660 GRANT FOR THIS PROJECT
74033	GRANT, FEDERAL, OTHER THAN PL 660 GRANT
74034	GRANT, FUTURE PL 660 WHICH MAY APPLY TO THIS PROJ
74035	GRANT, TOTAL FEDERAL, WHICH APPLIES TO THIS PROJ
74036	GRANT, PROJ NUMBER ASSIGNED TO THIS APPLICATION
74037	GRANT, TYPE OF PROJECT TO WHICH GRANT APPLIES
74038	GRANT, STATUS OF PROJECT TO WHICH GRANT APPLIES
74039	PCS/STORET WATER QUALITY FILE INTERFACE YR/MO/DAY
74040	SURVEY NUMBER YYMMNO
74041	STORET STORAGE TRANSACTION DATE YR/MO/DAY

<b>STORET Code</b>	<b>Description of STORET Administrative Parameters</b>
74050	RADIOACTIVITY, GENERAL (PERMIT)
74051	ALGICIDES, GENERAL (PERMIT)
74052	CHLORINATED HYDROCARBONS, GENERAL (PERMIT)
74053	PESTICIDES, GENERAL (PERMIT)
74056	COLIFORM, TOTAL, GENERAL (PERMIT)
74065	STREAM FLOW CLASS
74066	ANNUAL RUNOFF
74067	SOIL CLASSIFICATION
74068	WATER QUALITY DESIGNATED USE CLASSIFICATION (IA)
74100	PRIMARY 1972 SIC CODE
74101	SECONDARY 1972 SIC CODE
74102	SECONDARY 1972 SIC CODE
74103	SECONDARY 1972 SIC CODE
74200	SAMPLE PRESERVATION METHODS ONE OR MORE IN COMB.
74205	LAND RESOURCE AREA (IOWA)
74206	SOIL EROSION POTENTIAL (IOWA)
74209	WATER QUALITY INDEX - STATE OF ILLINOIS, EPA
74210	FOREST STREAM WATER QUALITY INDEX CALC. NUMBER
74990	FISH SPECIES NUMERIC CODE - F&W SERVICE
74995	ANATOMY CODE
75000	SPECIES CODE-REMARK=SEX (M=MALE,F=FEMALE,U=UNK.)
81028	WITHDRAWAL OF GROUNDWATER (MILLION GAL/DAY)
82258	WATER CLASSIFICATION CODE (1-9) CODE
82292	DATA RELAY GROUND STATION SOURCE NODE CODE, CODE
82309	CONTAMINATION SOURCE POSSIBLE CODES NUMERIC CODE
82310	DEPTH CONFIDENCE IN REPORTED VALUES NUMERIC CODES
82373	FREQUENCY OF SAMPLING M=MON,Q=QUAR,Y=YR,R=RNFFCODE
82519	DRILLER REGISTRATION NUMBER ALPHA-NUMERIC CODE
82562	NARRATIVE REQUIREMENT EXCEEDANCES INTEGER

<b>STORET Code</b>	<b>Description of STORET Administrative Parameters</b>
82576	DAILY EXCURSION TIME, WATER MIN
82577	MONTHLY EXCURSION TIME, WATER TOTAL MIN
82578	DAY/MAXIMUM EXCURSION TIME, WATER MIN
82579	CODE NUMBER FOR PERSON COLLECTING SAMPLE
84002	CODE, GENERAL INFORMATION - ALPHA, NUMERIC CODE
84003	WATER SHED ID NUMBER (IOWA)
84005	FISH SPECIES CODE-FISH & WILDLIFE SER
84006	OWNERSHIP CLASSIFICATION OF LAKE, ILLINOIS SYSTEM
84010	PUBLIC ACCESS TO LAKE ILLINOIS SYSTEM
84011	CONFIDENCE CODE FOR GLC CONFIRMATION CODE
84012	PATIENT PARAMETERS (AGE, SEX, WT, ETC.) CODE
84013	SAMPLE PARAMETERS D=DESIGN SPECIMEN, S=SURPLUS
84027	CODE NUMBER FOR AGENCY COLLECTING SAMPLE
84028	CODE NO FOR AGENCY ANALYZING SAMPLE
84029	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE FIELD
84033	EGD ANALYTICAL DATA COMPLETENESS Y=YES N=NO CODE
84034	EGD SMPL NO.(SMPL.IDENT) NUMERIC=SCS ALPH+4NUM=JRB
84035	EGD SAMPLE CLASSIFICATION CATEGORY ALPHA CODE
84036	EGD INDUSTRIAL CATEGORY NUMERIC CODE
84037	EGD INDUSTRIAL CATEGORY NAME ALPHA CODE
84038	EGD LABORATORY NUMERIC CODE
84039	EGD LABORATORY NAME ALPHA CODE
84040	EGD SAMPLE STATUS (1-5,9,AND BLANK) NUMERIC CODE
84041	EGD ACID STATUS (1-5,9,AND BLANK) NUMERIC CODE
84042	EGD BASE STATUS (1-5,9AND BLANK) NUMERIC CODE
84043	EGD PESTICIDE STATUS (1-5,9,AND BLANK) NUMERIC CODE
84044	EGD VOA FRACT. STATUS INDICATOR (1-5,9,BLANK) CODE
84045	EGD ACID EXTRACT DATE (YYMMDD) NUMERIC CODE
84046	EGD BASE EXTRACTION DATE (YYMMDD) NUMERIC CODE

<b>STORET Code</b>	<b>Description of STORET Administrative Parameters</b>
84047	EGD PESTICIDE EXTRACTION DATE (YYMMDD) NUMERIC CODE
84048	EGD VOA FRACTION INJECTION DATE YYMMDD NUMERIC CODE
84049	EGD ACID CONC. FACTOR (FIVE NUMERIC DIGITS) CODE
84050	EGD BASE CONC.FACTOR (FIVE NUMERIC DIGITS) CODE
84051	EGD PESTICIDE CONC.FACTOR (FIVE NUMERIC DIGITS) CODE
84052	EGD VOA FRACTION CONC. FACTOR (5 NUMERIC DIGITS) CODE
84053	SAMPLE TYPE AND FREQUENCY OF COLLECTION CODE
84054	LITHOLOGY ALPHA-NUMERIC CODE
84055	AVAILABLE LOGS ALPHA-NUMERIC CODE
84056	WATER USE CATEGORY ALPHA-NUMERIC CODE
84057	INSPECTION TYPE ALPHA-NUMERIC CODE
84058	HYDROGEOLOGIC SYSTEM ALPHA-NUMERIC CODE
84059	WELL OWNERSHIP ALPHA-NUMERIC CODE
84060	TOPOGRAPHY ALPHA-NUMERIC CODE
84061	WELL USE ALPHA-NUMERIC CODE
84062	MEASURING POINT DESCRIPTION ALPHA-NUMERIC CODE
84063	DRILLING METHOD ALPHA-NUMERIC CODE
84064	WELL DATA AVAILABILITY ALPHA-NUMERIC CODE
84065	PERMIT COMPLIANCE DATA ALPHA-NUMERIC CODE
84067	NATURE OF MONITORING ALPHA-NUMERIC CODE
84073	REPLACES EXISTING WELL ALPHA-NUMERIC CODE
84074	AQUIFER TYPE (SEE USGS HANDBOOK) ALPHA CODE
84075	WELL PERMIT NUMBER ALPHA-NUMERIC CODE
84076	TSD MONITORING WELL TYPE ALPHA CODE
84077	TSD MONITORING WELL SAMPLING METHOD ALPHA CODE
84083	POLLUTION VERIFICATION ALPHA CODE
84084	WELL SAMPLE PURPOSE ALPHA CODE
84090	SAMPLE FILE CONTROL PROJECT IDENTIFICATION A-CODE
84091	INFILTRATION DATE/BEGINNING 'YYMMDD'

<b>STORET Code</b>	<b>Description of STORET Administrative Parameters</b>
84092	INFILTRATION DATE/ENDING 'YYMMDD'
84093	ENFORCEMENT FORM #2-C,DATA IDENTIFICATION CODE
84102	SAMPLE SPECIES-SUB ID ALPHA CODE
84103	DIOXIN LABORATORY ALPHA CODE
84104	DIOXIN STUDY ALPHA CODE
84112	SOURCE OF GEHYDROLOGIC DATA CODE
84119	SOURCE OF EVACUATION DATA CODE
84121	REGULATING AGENCY CODE
84122	SAMPLE PURPOSE CODE
84126	SOURCE OF DEPTH DATA CODE
84127	METHOD OF DEPTH MEASUREMENT CODE
84128	SOURCE OF WATER-LEVEL DATA CODE
84129	DATA QUALITY
84141	LAKE, PHYSICAL CONDITION AT SAMPLE TIME, 1-5, CODE
84142	LAKE,RECREATIONAL SUITABILITY @ SMPL TIME,1-5, CODE
84164	SAMPLER TYPE, CODE
85300	PROBLEM CODE NES SURVEY
85327	WATER LEVEL AT SAMPLE COLLECTION TIME-CODE-NES
85332	CLOUD COVER AT SAMPLE COLLECTION TIME-CODE-NES
85553	WELL COMPLETION DATE (MONTH/YEAR)
85554	WELL WORKOVER DATE, LATEST (MONTH/YEAR)

## Appendix E

### STORET Parameters Not Suitable for Statistical Analysis

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
00001	X-SEC. LOC., HORIZ (FT. FROM R BANK LOOK UPSTR.)
00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)
00003	SAMPLING STATION LOCATION, VERTICAL (FEET)
00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)
00006	DISTANCE FROM LOCATION IN X MILES
00007	DISTANCE FROM LOCATION IN Y MILES
00008	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE
00009	X-SEC. LOC.(FT FROM LEFT BANK LOOKING DOWNSTRM)
00027	CODE NO FOR AGENCY COLLECTING SAMPLE
00028	CODE NO FOR AGENCY ANALYZING SAMPLE
00033	WEATHER CODE FOR OCEAN-OBSERV. (WMO CODE 4677)
00037	WIND FORCE (BEAUFORT UNITS)
00038	WIND DIRECTION (WMO CODES 0885 + 0887)
00041	WEATHER (WMO CODE 4501)
00042	ALTITUDE IN FEET ABOVE MEAN SEA LEVEL
00043	CLOUD TYPE (WMO CODE 0500)
00044	CLOUD AMOUNT (WMO CODE 2700)
00047	TOTAL PARTIAL PRESSURE DISSOLVED GASES (MM HG)
00048	TOTAL PARTIAL PRESSURE DISSOLVED GASES (% SAT)
00049	SURFACE AREA IN SQUARE MILES
00050	EVAPORATION, TOTAL (INCHES PER DAY)
00051	SURFACE AREA IN SQUARE FEET
00053	SURFACE AREA, ACRES
00054	RESERVOIR STORAGE - ACRE FEET
00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION
00067	TIDE STAGE

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
00069	SEA WAVES(0=NONE;1=0-3";2=4-20";3=21-48";4=4-8')
00097	SAMPLING STATION LOCATION, VERTICAL (FEET)
00098	SAMPLING STATION LOCATION, VERTICAL (METERS)
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI
00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)
01300	OIL-GREASE (SEVERITY)
01305	DETERGENT SUDS (SEVERITY)
01310	GAS BUBBLES (SEVERITY)
01315	SLUDGE, FLOATING (SEVERITY)
01320	GARBAGE, FLOATING (SEVERITY)
01325	ALGAE, FLOATING MATS (SEVERITY)
01330	ODOR, ATMOSPHERIC (SEVERITY)
01331	TASTE (SEVERITY)
01335	SEWAGE SOLIDS, FRESH, FLOATING (SEVERITY)
01340	FISH, DEAD (SEVERITY)
01345	DEBRIS, FLOATING (SEVERITY)
01350	TURBIDITY (SEVERITY)
01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE
01355	ICE COVER, FLOATING OR SOLID (SEVERITY)
03595	BIOASSAY (96 HR), EFFLUENT, TOTAL CODE
03596	BIOASSAY (48 HR), EFFLUENT, TOTAL CODE
03597	BIOASSAY (24 HR), EFFLUENT, TOTAL CODE
03598	TOXICITY, EFFLUENT, TOTAL CODE
03599	TOXICITY, CHOICE OF SPECIES, EFFLUENT CODE
03600	TOXICITY, TROUT, EFFLUENT, TOTAL CODE
03601	TOXICITY, SAND DOLLAR, EFFLUENT CODE
03602	BIOCHEMICAL OXYGEN DEMAND, EFFLUENT, TOTAL CODE
03603	SOLIDS, TOTAL SUSPENDABLE, EFFLUENT, TOTAL CODE
03605	FLOW METER CALIBRATION, WATER CODE

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
03717	ONCORHYNCHUS MYKISS, WATER CODE
04117	TETHER LINE USED FOR COLLECTING SAMPLE CODE
04160	HALOCARBONS, PURGEABLE, SCAN, EFFLUENT CODE
04161	HALOCARBONS, PURGEABLE, SCAN, SLUDGE CODE
04162	AROMATIC, PURGEABLE, SCAN, EFFLUENT CODE
04163	AROMATIC, PURGEABLE, SCAN, SLUDGE CODE
04164	PHENOLIC, TOTAL, SCAN, EFFLUENT CODE
04165	PHENOLIC, TOTAL, SCAN, SLUDGE CODE
04166	PCB, TOTAL, SCAN, EFFLUENT CODE
04167	PCB, TOTAL, SCAN, SLUDGE CODE
04174	FREE LIQUIDS IN SEWAGE SLUDGE CODE
34765	AVIAN NUMERICAL SPECIES CODE (BIRDS)
34766	MAMMALIAN NUMERICAL SPECIES CODE
34771	MACROPHYTE, INSTREAM, VISUAL SIGHTING CODE
34773	ODOR, AMBIENT WATER CODE
34774	FISH, INSTREAM, VISUAL SIGHTING CODE
34775	STREAMBANK CHANNEL ALTERATIONS CODE
34776	HYDRAULIC STRUCTURES, INSTREAM CODE
34780	LAND USE, ADJACENT STREAM CODE
34781	SAMPLE POINTS, # OF LONGTDNL TRANSECTS, REACH CODE
34782	STREAM STAGE TREND CODE
34789	HABITATS, TYPES SAMPLED CODE
45613	FLOATING SOLIDS/VISIBLE FOAM, VISUAL, YES=1, NO=0, CODE
45614	SANITARY WASTE DISCHARGE ASSESSMENT, YES=1, NO=0, CODE
45615	INTERMITTENT DISCHARGE ASSESSMENT, YES=1, NO=0, CODE
46001	WATER APPEARANCE CODE (BASED ON FIELD ASSESSMENT)
46478	EQUIPMENT INSPECTION, VISUAL CODE
46486	TOXICITY, ACUTE 24HR(STATIC) CERIODAPHNIA (P/F) CODE
47454	FLOW METER REVOLUTIONS NUMBER

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
47455	LATITUDE, STARTING, OF A SAMPLE TOW DDMMSS
47456	LONGITUDE, STARTING, OF A SAMPLE TOW DDDMMSS
47457	LATITUDE, FINISHING, OF A SAMPLE TOW DDMMSS
47458	LONGITUDE, FINISHING, OF A SAMPLE TOW DDDMMSS
47459	LENGTH FREQUENCY NUMBER
47461	TIME THAT THE EQUIPMENT WAS SAMPLING MINUTES
47476	DIRECTION OF TOW IN RELATION TO CURRENT NUM CODE
50044	HYDROGRAPH LIMB, 1BASE, 2RISING, 3PEAK, 4FALLING, CODE
61390	DIATOMS,FIRST DOMINANT SPECIES OF UNITS - CODE
61391	DIATOMS,SECOND DOMINANT SPECIES OF UNITS - CODE
61392	DIATOMS,THIRD DOMINANT SPECIES OF UNITS - CODE
61393	DIATOMS,FOURTH DOMINANT SPECIES OF UNITS - CODE
70220	WAVE DIRECTION (WMO CODES 0885 + 0887)
70222	WAVE HEIGHT (WMO CODE 1555)
70223	WAVE PERIOD (WMO CODE 3155)
71090	BIVALVE SPECIES CODE
71500	EQUITABILITY INDEX,BENTHIC MACROINVER CODE
72000	ELEVATION OF LAND SURFACE DATUM (FT. ABOVE MSL)
72001	DEPTH, TOTAL OF HOLE (FT BELOW LAND SURFACE DATUM)
72002	DEPTH TO TOP OF WATER-BEARING ZONE SAMPLED (FT)
72003	DEPTH TO BOTTOM OF WATER-BEARING ZONE SAMPLED (FT)
72004	PUMP OR FLOW PERIOD PRIOR TO SAMPLING MINUTES
72005	SAMPLE SOURCE CODE (BM WELL DATA)
72006	SAMPLING CONDITION CODE (BM WELL DATA)
72007	FORMATION NAME CODE (BM WELL DATA)
72017	SERIES CODE (BM WELL DATA)
72018	SYSTEM CODE (BM WELL DATA)
72111	DIRECT READOUT GROUND STATN TRANSMIT EROR CODE NUM
74054	FECAL STREPTOCOCCI, GENERAL (PERMIT)

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
74055	FECAL COLIFORM, GENERAL (PERMIT)
80889	ACTIVATED SLUDGE PROCESS MODIFICATION CODE
81024	DRAINAGE AREA IN SQUARE MILES (SQ. MI.)
81637	SHELLFISH SPECIES NUMERIC CODE
82289	LAGOON OBSERVATION, VISUAL, Y=YES N=NO CODE
82398	SAMPLING METHOD (CODES)
82524	STORAGE COEFFICIENT NUMERICAL CODE
82923	ATMOSPHERIC DEPOSITION TYPE, WET CODE
83205	ATMOSPHERIC DEPOSITION TYPE, BULK CODE
84000	GEOLOGIC AGE CODE (SEE USGS CATALOG)
84001	AQUIFER NAME CODE (SEE USGS CATALOG)
84004	LAKE TYPE ILLINOIS CLASSIFICATION SYSTEM
84007	ANATOMY ALPHA CODE
84008	LIFE STYLE/HABITAT OF THE INDIVIDUALS IN THE SAMPLE
84009	SHELLFISH SPECIES ALPHANUMERIC CODE
84014	SPECIES SEX CODE
84030	CLOUD AMOUNT ALPHA WEATHER CODES
84031	PHYSICAL WEATHER ALPHA WEATHER CODES
84032	STREAM CONDITION ALPHA WEATHER CODES
84066	OIL AND GREASE, VISUAL, ALPHA-NUMERIC CODE
84068	SERIES CODE ALPHA-NUMERIC CODE
84069	FORMATION CODE ALPHA-NUMERIC CODE
84070	METHOD OF TESTING WELL YIELD ALPHA-NUMERIC CODE
84071	WATER LEVEL MEASUREMENT CONDITIONS ALPHA-NUM CODE
84072	WATER LEVEL MEASUREMENT METHOD ALPHA-NUMERIC CODE
84078	GIARDIA LAMBLIA, 2HSO4 OR SUC GRAD, MICRO, CODE
84079	BACTERIA, CELLUOLYTIC, AEROBIC-ANAEROBIC, RT 5-7, CODE
84080	BACTERIA, HYDROCARBONOCLASTIC, SHAKE INC 32C/WK, CODE
84081	YERSINIA ENTEROCOLITICA, SB BROTH, MAC AGAR,22C, CODE

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
84082	SALMONELLA/SHIGELLA, QUANT OR QUAL, HVF OR SWAB, CODE
84085	ORGANICS, VOLATILE, DETECTED, NUMERIC CODE, CODE
84086	MACROINVERTEBRATE SPECIES NUMERIC CODE
84087	MACROINVERTEBRATE HABITAT CODE
84088	BIOLOGY 1 MACROINVERTEBRATE CODE
84089	BIOLOGY 2 MACROINVERTEBRATE CODE
84094	PHYTOPLANKTON SPECIES CODE, NUMERIC
84095	PHYTOPLANKTON SPECIES CODE, ALPHA
84096	SEVERITY OF NON-PLANKTON ALGAE-MAT COVERAGE CODE
84097	LAGOON MOUTH CONDITION CODE
84098	COLOR OF NON-PLANKTONIC ALGAE CODE
84099	WATER - RELATIVE WATER LEVEL CODE
84100	SEX(1-MALE,2-FEMALE,3-MIXED,4-UNKNOWN) NUM CODE
84101	METAFORM, BENTHIC, ADULT(A), PUPAE(P), LARVAE(L) CODE
84105	OIL-SEPARATOR OBSERVATION ASSESS (0=DID NOT,1=DID)
84106	EVAPORAT/BED OBS ASSESS (0=DID NOT LOOK, 1=DID LOOK)
84107	AREA INSPECTION, VISUAL (0=DID NOT, 1=DID) CODE
84108	DRAIN FIELD INSPECTION ASSESS (0=DID NOT, 1=DID) CODE
84109	SLUDGE BUILD-UP IN WATER (0=DID NOT OBS, 1=OBS) CODE
84110	POUND OBSERVATION ASSESS WATER (0=DID NOT, 1=DID) CODE
84111	LITHOLOGIC MODIFIER CODE
84113	WELL INTAKE FINISH CODE
84114	WELL CASING MATERIAL CODE
84115	TYPE OF MATERIAL FROM WHICH OPENING IS MADE CODE
84116	DRILLING FLUID CODE
84117	TYPE OF SURFACE SEAL CODE
84118	METHOD OF DEVELOPMENT CODE
84120	PACKING MATERIAL CODE
84124	METHOD OF EVACUTAION CODE

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
84125	METHOD OF WATER-LEVEL MEASUREMENT CODE
84130	OUTFALL OBSERVATION, VISUAL, Y=YES N=NO CODE
84131	SAMPLING METHOD, CONFIDENCE CODE (A,B,C,D) CODE
84132	STREAMBANK, VEGETATIVE STABILITY RATING CODE
84133	STREAMBANK, STABILITY (BANK EROSION) RATING CODE
84134	PARTICLES, DEGREE SURROUNDED BY FINE SEDIMENT, CODE
84135	STREAMSIDE, (SHORELINE) COVER RATING CODE
84136	CANOPY TYPE CODE
84137	CHANNEL STABILITY RATING CODE (E,G,F,P) CODE
84138	COLIFORM, TOTAL, WATER, WHOLE, MPN, PRES=1, ABSNT=2, CODE
84139	ENTEROBACTER AGGLOMERANS, WTR, MF, PRES=1, ABSNT=2, CODE
84140	KLEBSIELLA PNEUMONIAE, WTR, WH, MF, PRES=1, ABSNT=2, CODE
84143	WELL, PURGING CONDITION CODE
84144	WELL, SELECTION CRITERIA CODE
84145	PROJECT COMPONENT CODE
84146	LAND USE, PREDOMINANT, WITHIN 100 FT OF WELL, CODE
84147	LAND USE, PREDOMINANT, 1/4 MI.RADIUS OF WELL, CODE
84148	LAND USE, PREDMNT., FRAC., WITHIN 1/4 MI OF WELL, CODE
84149	LAND USE, CHANGE, LAST 10 YRS, WITHIN 1/4MI WELL, CODE
84150	HABITAT QUALITY INDEX RATING CODE
84151	AQUATIC LIFE, USE CLASSES CODE
84152	STREAM, STAGE CLASS CODE
84153	STREAMBANKS, GRAZING DAMAGE CODE
84154	CHANNEL, MAJOR ALTERATIONS CODE
84155	RIFFLE/RUNS, OCCURRENCE CODE
84156	POOL, DESCRIPTION CODE
84157	SANDBARS, LARGE, OCCURRENCE CODE
84158	LAND USE, NEAR STREAM, PREDOMINANT CODE
84159	STREAM,COVER (INSTREAM SHELTER FOR ADULT FISH), CODE

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
84160	STREAM, DEGRADATION RATING CODE
84161	STREAM, ORDER CODE
84162	LAND RESOURCE AREA CODE
84163	FLOW, STREAM, CLASSIFICATION CODE
84165	DISCHARGE EVENT OBSERVATION, YES=1 NO=0, CODE
84166	STORM HYDROGRAPH, DIRECTION, (RISE,FALL), CODE
84167	MICROSCOPIC EXAMINATION CODE
84168	AVIAN SPECIES ALPHA CODE (BIRDS)
84169	MAMMALIAN ALPHA SPECIES CODE
84170	ALPHA AGE TEXT CODE
84200	LATITUDE/LONGITUDE COORDINATES OF WELL, METHOD CODE
84201	NATIONAL REFERENCE DATUM, ALTITUDE(VERTICAL) CODE
84202	ALTITUDE METHOD CODE
85000	STREAM MILE, ACTUAL MILES
85014	HABITAT, 1970 ACRES THIS TYPE FOR THIS STATION
85015	HAB., ESTIMATED ACRES THIS TYPE THIS STATION
85016	HAB., ESTIMATED ACRES THIS TYPE THIS STA. BY 1990
85017	HAB., ESTIMATED ACRES THIS TYPE THIS STA. BY 2000
85018	TYPE CODES: 1=CLEAR CUT/2=SELECT CUT/3=RNGE DEVLP
85019	ACRES, NO. ALTERED FROM 1965-1970 (0-5 YEARS OLD)
85020	ACRES, NO. ALTERED 1960-1965 (5-10 YEARS OLD)
85021	ACRES, NO. ALTERED 1955-1960 (10-15 YEARS OLD)
85022	ACRES, NO. ALTERED 1950-1955 (15-20 YEARS OLD)
85023	ACRES, NO. ALTERED BEFORE 1950 (20+ YEARS OLD)
85024	ACRES,PREDICTED YRLY.AVE.TO BE ALTERED IN FUTURE
85025	LANDOWNERS, CODES FOR ALL IN STATE OF OREGON
85026	ACRES, CURRENT OWNED THIS LANDOWNER THIS STATION
85027	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 1980
85028	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 1990

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
85029	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 2000
85030	LAND USES, CODES FOR ALL IN STATE OF OREGON
85031	ACRES, CURRENT DEDICATED TO THIS USE THIS STATION
85032	ACRES, ESTM. DEDICTD TO THIS USE THIS STA BY 1980
85033	ACRES, ESTM. DEDICTD TO THIS USE THIS STA BY 1990
85034	ACRES, ESTM. DEDICTD TO THIS USE BY YR.2000 --STA.
85035	HAB., INDICATED ANIMAL USES THIS TYPE IN WINTER
85036	HAB., INDICATED ANIMAL USES THIS TYPE IN SPRING
85037	HAB., INDICATED ANIMAL USES THIS TYPE IN SUMMER
85038	HAB., INDICATED ANIMAL USES THIS TYPE IN FALL
85039	HAB., INDICATED ANML USES THIS TYPE FOR WINTERING
85040	HAB., INDICATED ANML USES THIS TYPE FOR FEEDING
85041	HAB., INDICATED ANML USES TYPE FOR REARING YOUNG
85042	HAB., INDICATED BIRD USES THIS TYPE FOR NESTING
85043	HAB., INDICATED ANML USES THIS TYPE FOR SHELTER
85044	HAB., INDICATED ANML USES THIS TYPE FOR REST AREA
85045	ANML, SHOWS PRESENCE/ABSENCE OF COMMENTS ON THIS ANML
85046	HAB., ACRES OCCUPIED BY THIS ANML THIS UNIT & CO.
85050	ANIMALS ARE NOT PRESENT THIS STATION
85051	ANIMALS, ONLY A FEW ARE PRESENT THIS STATION
85052	ANIMALS COMMONLY SEEN; USE MODERATE THIS STATION
85053	ANIMALS FREQUENTLY SEEN; USE HEAVY THIS STATION
85070	OWNERSHIP (.1) AND ACCESS (.2) BY YEAR
85071	PRIVATE OWNERSHIP AND ACCESS MILEAGE
85072	FEDERAL OWNERSHIP AND ACCESS MILEAGE
85073	STATE OWNERSHIP AND ACCESS MILEAGE
85074	COUNTY OWNERSHIP AND ACCESS MILEAGE
85075	CITY OWNERSHIP AND ACCESS MILEAGE
85076	WATER YEAR DATA REFERS TO

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
85077	CALENDAR YEAR DATA REFERS TO
85088	MONTHS POLLUTION IS A PROBLEM JAN THRU JUNE
85089	MONTHS POLLUTION IS A PROBLEM JULY TO DECEMBER
85090	MAN-CAUSED CHANNEL CHANGE IN MILES
85091	STREAM BANK HABITAT DESTROYED IN MILES
85092	STREAMBED SILTED IN MILES
85093	TURBIDITY PROBLEM IN MILES
85094	SEVERITY: 1=ELIMINATES 2=INTERFERES 3=NO PROBLEM
85095	DURATION OF TURBIDITY PROBLEM IN MONTHS
85096	SEASON OF NATURAL DRY CHANNEL 1=SP 2=SU 3=F 4=W
85097	NATURAL DRY CHANNEL IN MILES
85098	MAN-CAUSED DRY CHANNEL SEASON 1=SP 2=SU 3=F 4=W
85099	MAN-CAUSED DRY CHANNEL IN MILES
85100	YEAR BARRIER IS PRESENT
85101	NUMBER OF NATURAL BARRIERS
85102	MILES BLOCKED BY NATURAL BARRIERS
85103	NUMBER OF NATURAL BARRIERS TO BE REMOVED
85104	NUMBER OF DAMS AND MAN CAUSED OBSTRUCTIONS
85105	MILES BLOCKED BY DAMS OR MAN CAUSED OBSTRUCTIONS
85106	NUMBER OF DAMS TO BE ALTERED
85107	MILES OF STREAM OCCUPIED BY IMPOUNDMENT
85108	LOWER END OF SECTION COVERED BY THIS FORM
85109	UPPER END OF SECTION COVERED BY THIS FORM
85110	LOWER LIMIT THIS SPECIES THIS FORM BY RIVER MILE
85111	UPPER LIMIT THIS SPECIES THIS FORM BY RIVER MILE
85112	STREAM SURVEY:1=COMPLETE 2=INCOMPLETE 3=NONE
85113	ABUNDANCE: 1=FSHWY/TAG&R 2=SURVEY 3=EST PLUS 4=EST
85114	ABUNDANCE: N=S&ST 1=ABUNDANT 4=SCARCE RGH FSH 3=SCARCE
85116	SQUARE YARDS OF SPAWNING AREA IN 1970

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
85117	SQUARE YARDS OF SPAWNING AREA IN 1980
85118	SQUARE YARDS OF SPAWNING AREA IN 1990
85119	SQUARE YARDS OF SPAWNING AREA IN 2000
85120	MILES OF REARING AREA IN 1970
85121	MILES OF REARING AREA IN 1980
85122	MILES OF REARING AREA IN 1990
85123	MILES OF REARING AREA IN 2000
85124	CATCH BY SPORT ANGLING IN 1970
85125	RECREATION DAYS SPENT ANGLING IN 1970
85126	RECREATION DAYS SPENT ANGLING IN 1980
85127	RECREATION DAYS SPENT ANGLING IN 1990
85128	RECREATION DAYS SPENT ANGLING IN 2000
85129	CONTRIBUTION TO COMMERCIAL CATCH IN 1970
85130	PERCENT OF TOTAL FISHING DONE FROM BOAT IN 1970
85131	PERCENT OF TOTAL FISHING DONE FROM BANK IN 1970
85132	PERCENT OF TOTAL FISHING DONE WITH LURE IN 1970
85133	PERCENT OF TOTAL FISHING DONE WITH BAIT IN 1970
85134	PERCENT OF TOTAL FISHING DONE WITH A FLY IN 1970
85146	YEAR THIS FACTOR HAS A LIMITING EFFECT
85157	MAN DAYS OF WATER SKIING
85158	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85159	MAN DAYS OF BOATING OTHER THAN ANGLING
85160	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85161	MAN DAYS OF SWIMMING
85162	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85163	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NOT PRESENT
85165	NUMBER OF MONTHS SUSPENDED SOLIDS ARE A PROBLEM
85167	NUMBER OF MONTHS PLANKTON IS A PROBLEM
85168	1=ELIMINATE PROD 2=REDUCE 3=NO INTER. 4=NOT PRES

<b>STORET Code</b>	<b>Description of STORET Parameters Not Suitable for Statistical Analysis</b>
85169	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85170	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85171	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85172	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85173	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85174	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85175	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85176	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85177	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85178	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85179	YEAR THIS NUMBER OF FACILITIES PRESENT
85180	NUMBER OF BOAT RAMPS
85181	NUMBER OF MOORAGES
85182	NUMBER OF PICNIC AREAS
85183	NUMBER OF CAMP AREAS
85184	NUMBER OF RESORTS
85185	YEAR THIS ZONED AREA PRESENT
85186	ACRES SET ASIDE FOR OTHER BOATING
85187	ACRES SET ASIDE FOR WATER SKIING
85188	MILES OF SHORE LOST TO ACCESS BY HOME SITES
85189	TOTAL MILES OF SHORELINE
85193	WILL RECR BE INC BY RELEASE OF FINGERL 0=NO 1=YES
85195	CATCH AND RECREATION ESTIMATE 1=BEST 4=POOREST
85333	PRECIPITATION-SAMPLE COLLECTION TIME-CODE- NES
85538	GAMMA SCAN DATE (YR,MO,DAY)
85539	DATE OF REPORT (YR,MO,DAY)
85658	TIME NIGHT CO2 HR
85661	TIME, INTERVAL DAY CO2 HR

## Appendix F

### National EPA Water Quality Criteria Summary<sup>1</sup>

The following table presents the national water quality criteria that were used to assess water quality data on a station-by-station basis and within the entire study area. Criteria are, for the most part, maximum values (except for dissolved oxygen, pH, and as noted). Criteria exist in any of four categories: Fresh Acute, Drinking Water, Marine Acute, and Other. Acute criteria are the highest 1-hour average concentrations which should not result in unacceptable impacts to aquatic organisms in either fresh or marine waters, respectively. The Drinking Water criteria are intended for human consumption; while the Other criteria represents National Park Service or other concerns. Parameters are listed in ascending order by STORET code. It is important to note that similar parameters often have non-consecutive codes. Consequently, scanning the entire list is necessary to obtain the criteria for all parameters of a particular type (eg. lead, copper, etc.). Refer to the Parameter Period of Record Tabulation to obtain the STORET code for any parameter measured in the park.

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
	00070				50 <sup>f</sup>	TURBIDITY, JACKSON CANDLE UNITS	JTU	Physical
	00076				50 <sup>f</sup>	TURBIDITY, HACH TURBIDIMETER, FORMAZIN TUR. UNITS	FTU	Physical
14808798	00154		250 <sup>s</sup>			SULFATE (AS S) WHOLE WATER	MG/L	General Inorganic
7782447	00299				4.0 <sup>u</sup>	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	MG/L	Dissolved Oxygen
7782447	00300				4.0 <sup>u</sup>	OXYGEN, DISSOLVED	MG/L	Dissolved Oxygen
	00400				≤6.5, ≥9.0 <sup>#</sup>	PH	SU	Physical
	00403				≤6.5, ≥9.0 <sup>#</sup>	PH, LAB	SU	Physical
	00406				≤6.5, ≥9.0 <sup>#</sup>	PH, FIELD	SU	Physical

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<sup>1</sup>Sources: (1) U.S. Environmental Protection Agency, Quality Criteria for Water 1995, Final Draft; (2) U.S. Environmental Protection Agency, 40 CFR 141 - National Primary Drinking Water Regulations, and 40 CFR 143 - National Secondary Drinking Water Regulations, July 1, 1994; and (3) Others as Noted in Footnotes.

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
471341	00409				<200 <sup>s</sup>	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS	UEQ/L	General Inorganic
17778880	00613		1			NITRITE NITROGEN, DISSOLVED AS N	MG/L	Nitrogen
17778880	00615		1			NITRITE NITROGEN, TOTAL AS N	MG/L	Nitrogen
17778880	00618		10			NITRATE NITROGEN, DISSOLVED AS N	MG/L	Nitrogen
17778880	00620		10			NITRATE NITROGEN, TOTAL AS N	MG/L	Nitrogen
17778880	00628		10			NITRITE + NITRATE, SUSPENDED AS N	MG/L	Nitrogen
17778880	00630		10			NITRITE PLUS NITRATE, TOTAL 1 DET.	MG/L	Nitrogen
17778880	00631		10			NITRITE PLUS NITRATE, DISSOLVED 1 DET.	MG/L	Nitrogen
57125	00718	22	200	1.0		CYANIDE, WEAK ACID, DISSOCIABLE, WATER, WHOLE	UG/L	General Inorganic
57125	00719	22	200	1.0		CYANIDE, FREE, IN WATER& WASTEWATERS, HBG METHOD	UG/L	General Inorganic
57125	00720	0.022	0.2	0.001		CYANIDE, TOTAL	MG/L	General Inorganic
57125	00722	0.022	0.2	0.001		CYANIDE, FREE (AMENABLE TO CHLORINATION)	MG/L	General Inorganic
57125	00723	22	200	1.0		CYANIDE, DISSOLVED STD METHOD	UG/L	General Inorganic
57125	00724	22	200	1.0		CYANIDE COMPLEXED TO A RANGE OF COMPNDS, WATER	UG/L	General Inorganic
16887006	00940	860	250 <sup>s</sup>			CHLORIDE, TOTAL IN WATER	MG/L	General Inorganic
16887006	00941	860	250 <sup>s</sup>			CHLORIDE, DISSOLVED IN WATER	MG/L	General Inorganic
14808798	00945		250 <sup>s</sup>			SULFATE, TOTAL (AS SO <sub>4</sub> )	MG/L	General Inorganic
14808798	00946		250 <sup>s</sup>			SULFATE, DISSOLVED (AS SO <sub>4</sub> )	MG/L	General Inorganic
1332214	00948		7000000			ASBESTOS, WHOLE SAMPLE	CNT/L	General Inorganic
16984488	00950		4.0			FLUORIDE, DISSOLVED AS F	MG/L	General Inorganic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
16984488	00951		4.0			FLUORIDE, TOTAL AS F	MG/L	General Inorganic
7782414	00953		4000			FLUORINE, TOTAL	UG/L	General Inorganic
7440382	00978	360	50	69		ARSENIC, TOTAL RECOVERABLE IN WATER AS AS	UG/L	Metal
7782492	00981	20	50	300		SELENIUM, TOTAL RECOVERABLE IN WATER AS SE	UG/L	Metal
7440280	00982	1400*	2.0	2130*		THALLIUM, TOTAL RECOVERABLE IN WATER AS TL	UG/L	Metal
7782492	00990	20	50	300		SELENITE, TOTAL RECOVERABLE INORGANIC	UG/L	Metal
7440382	00991	360	50	69		ARSENIC, TOTAL RECOVERABLE TRIVALENT INORGANIC	UG/L	Metal
7440382	00995	360	50	69		ARSENIC, INORGANIC DISS	UG/L	Metal
7440382	00996	360	50	69		ARSENIC, INORGANIC SUSP	UG/L	Metal
7440382	00997	360	50	69		ARSENIC, INORGANIC TOT	UG/L	Metal
7440417	00998	130*	4.0			BERYLLIUM, TOTAL RECOVERABLE IN WATER AS BE	UG/L	Metal
7440382	01000	360	50	69		ARSENIC, DISSOLVED	UG/L	Metal
7440382	01001	360	50	69		ARSENIC, SUSPENDED	UG/L	Metal
7440382	01002	360	50	69		ARSENIC, TOTAL	UG/L	Metal
7440393	01005		2000			BARIUM, DISSOLVED	UG/L	Metal
7440393	01006		2000			BARIUM, SUSPENDED	UG/L	Metal
7440393	01007		2000			BARIUM, TOTAL	UG/L	Metal
7440393	01009		2000			BARIUM, TOTAL RECOVERABLE IN WATER AS BA	UG/L	Metal
7440417	01010	130*	4.0			BERYLLIUM, DISSOLVED	UG/L	Metal
7440417	01011	130*	4.0			BERYLLIUM, SUSPENDED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440417	01012	130*	4.0			BERYLLIUM, TOTAL	UG/L	Metal
7440439	01025	3.9 <sup>+</sup>	5.0	43		CADMIUM, DISSOLVED	UG/L	Metal
7440439	01026	3.9 <sup>+</sup>	5.0	43		CADMIUM, SUSPENDED	UG/L	Metal
7440439	01027	3.9 <sup>+</sup>	5.0	43		CADMIUM, TOTAL	UG/L	Metal
7440473	01030		100			CHROMIUM, DISSOLVED	UG/L	Metal
7440473	01031		100			CHROMIUM, SUSPENDED	UG/L	Metal
7440473	01032	16	100	1100		CHROMIUM, HEXAVALENT	UG/L	Metal
16065831	01033	1700 <sup>+</sup>	100	10300*		CHROMIUM, TRI-VAL	UG/L	Metal
7440473	01034		100			CHROMIUM, TOTAL	UG/L	Metal
7440508	01040	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, DISSOLVED	UG/L	Metal
7440508	01041	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, SUSPENDED	UG/L	Metal
7440508	01042	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, TOTAL	UG/L	Metal
7439921	01049	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD, DISSOLVED	UG/L	Metal
7439921	01050	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD, SUSPENDED	UG/L	Metal
7439921	01051	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD, TOTAL	UG/L	Metal
7440280	01057	1400*	2.0	2130*		THALLIUM, DISSOLVED	UG/L	Metal
7440280	01058	1400*	2.0	2130*		THALLIUM, SUSPENDED	UG/L	Metal
7440280	01059	1400*	2.0	2130*		THALLIUM, TOTAL	UG/L	Metal
7440020	01065	1400 <sup>+</sup>	100	75		NICKEL, DISSOLVED	UG/L	Metal
7440020	01066	1400 <sup>+</sup>	100	75		NICKEL, SUSPENDED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440020	01067	1400 <sup>+</sup>	100	75		NICKEL, TOTAL	UG/L	Metal
7440020	01074	1400 <sup>+</sup>	100	75		NICKEL, TOTAL RECOVERABLE IN WATER AS NI	UG/L	Metal
7440224	01075	4.1 <sup>+</sup>	100 <sup>s</sup>	0.12		SILVER, DISSOLVED	UG/L	Metal
7440224	01076	4.1 <sup>+</sup>	100 <sup>s</sup>	0.12		SILVER, SUSPENDED	UG/L	Metal
7440224	01077	4.1 <sup>+</sup>	100 <sup>s</sup>	0.12		SILVER, TOTAL	UG/L	Metal
7440224	01079	4.1 <sup>+</sup>	100 <sup>s</sup>	0.12		SILVER, TOTAL RECOVERABLE IN WATER AS AG	UG/L	Metal
7440508	01089	0.018 <sup>+</sup>	1.3 <sup>a</sup>	0.0029		COPPER AS SUSPENDED BLACK OXIDE IN WATER	MG/L	General Inorganic
7440666	01090	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, DISSOLVED	UG/L	Metal
7440666	01091	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, SUSPENDED	UG/L	Metal
7440666	01092	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, TOTAL	UG/L	Metal
7440666	01094	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, TOTAL RECOVERABLE IN WATER AS ZN	UG/L	Metal
7440360	01095	88 <sup>p</sup>	6.0	1500 <sup>p</sup>		ANTIMONY, DISSOLVED	UG/L	Metal
7440360	01096	88 <sup>p</sup>	6.0	1500 <sup>p</sup>		ANTIMONY, SUSPENDED	UG/L	Metal
7440360	01097	88 <sup>p</sup>	6.0	1500 <sup>p</sup>		ANTIMONY, TOTAL	UG/L	Metal
7440439	01113	3.9 <sup>+</sup>	5.0	43		CADMIUM, TOTAL RECOVERABLE IN WATER AS CD	UG/L	Metal
7439921	01114	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD, TOTAL RECOVERABLE IN WATER AS PB	UG/L	Metal
7440473	01118		100			CHROMIUM TOTAL RECOVERABLE IN WATER AS CR	UG/L	Metal
7440508	01119	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, TOTAL RECOVERABLE IN WATER AS CU	UG/L	Metal
7440280	01124	1400 <sup>*</sup>	2.0	2130 <sup>*</sup>		THALLIUM, ACID SOLUBLE, WATER, WHOLE	UG/L	Metal
7440280	01128	1400 <sup>*</sup>	2.0	2130 <sup>*</sup>		THALLIUM, TOTAL RECOVERABLE <95%	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782492	01145	20	50	300		SELENIUM, DISSOLVED	UG/L	Metal
7782492	01146	20	50	300		SELENIUM, SUSPENDED	UG/L	Metal
7782492	01147	20	50	300		SELENIUM, TOTAL	UG/L	Metal
7782492	01167	20	50	300		SELENIUM, ACID SOLUBLE, WATER, WHOLE	UG/L	Metal
18540299	01220	16	100	1100		CHROMIUM, HEXAVALENT, DISSOLVED	UG/L	Metal
7440360	01268	88 <sup>p</sup>	6.0	1500 <sup>p</sup>		ANTIMONY (SB), WATER, TOTAL RECOVERABLE	UG/L	Metal
57125	01291	22	200	1.0		CYANIDE, FILTERABLE, TOTAL IN WATER	UG/L	General Inorganic
7440666	01303	0.120 <sup>+</sup>	5.0 <sup>s</sup>	0.095		ZINC, POTENTIALLY DISSOLVED WATER	MG/L	Metal
7440224	01304	0.0041 <sup>+</sup>	0.1 <sup>s</sup>	0.00012		SILVER, POTENTIALLY DISSOLVED WATER	MG/L	Metal
7440508	01306	0.018 <sup>+</sup>	1.3 <sup>a</sup>	0.0029		COPPER, POTENTIALLY DISSOLVED WATER	MG/L	Metal
18540299	01307	0.016	0.1	1.1		CHROMIUM, HEXAVALENT, POTENTIALLY DISSOLVED	MG/L	Metal
7440382	01309	0.36	0.05	0.069		ARSENIC, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440393	01311		2.0			BARIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440417	01312	0.13 <sup>*</sup>	0.004			BERYLLIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440439	01313	0.0039 <sup>+</sup>	0.005	0.043		CADMIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
16065831	01314	1.7 <sup>+</sup>	0.1	10.3 <sup>*</sup>		CHROMIUM, TRIVALENT, POTENTIALLY DISSOLVED	MG/L	Metal
7439921	01318	0.082 <sup>+</sup>	0.015 <sup>a</sup>	0.220		LEAD, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7439976	01321	0.0024	0.002	0.0021		MERCURY, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440020	01322	1.4 <sup>+</sup>	0.1	0.075		NICKEL, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7782492	01323	0.020	0.050	0.300		SELENIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440280	01324	1.4*	0.002	2.13*		THALLIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440611	01326		0.020 <sup>c</sup>			URANIUM, POTENTIALLY DISSOLVED, WATER	MG/L	Metal
7440224	01523	4.1 <sup>+</sup>	100 <sup>s</sup>	0.12		SILVER, IONIC	UG/L	Metal
50328	03648		0.2			BENZO (A) PYRENE, LIQUID FRACTION, ELUTRIATE	UG/L	General Organic
122349	04035		4.0			SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE	UG/L	Pesticide
10028178	04124		20 <sup>r</sup>			TRITIUM, TOTAL, WATER	PC/ML	Radiological
10028178	07000		20000 <sup>r</sup>			TRITIUM, TOTAL	PC/L	Radiological
10028178	07005		20000 <sup>r</sup>			TRITIUM, DISSOLVED	PC/L	Radiological
10028178	07010		20000 <sup>r</sup>			TRITIUM, SUSPENDED	PC/L	Radiological
	09501		5.0			RADIUM 226, TOTAL	PC/L	Radiological
	09503		5.0			RADIUM 226, DISSOLVED	PC/L	Radiological
	09505		5.0			RADIUM 226, SUSPENDED	PC/L	Radiological
	11500		5.0			RADIUM 226 + RADIUM 228, DISSOLVED	PC/L	Radiological
	11501		5.0			RADIUM 228, TOTAL	PC/L	Radiological
	11503		5.0			RADIUM 226 + RADIUM 228, TOTAL	PC/L	Radiological
10098972	13501		8.0 <sup>r</sup>			STRONTIUM 90, TOTAL	PC/L	Radiological
10098972	13503		8.0 <sup>r</sup>			STRONTIUM 90, DISSOLVED	PC/L	Radiological
10098972	13505		8.0 <sup>r</sup>			STRONTIUM 90, SUSPENDED	PC/L	Radiological
7782492	22675	20	50	300		SELENIUM, DISSOLVED ORGANIC	UG/L	Metal
7782492	22676	20	50	300		SELENIUM, HEXAVALENT, DISSOLVED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782492	22677	20	50	300		SELENIUM, TETRAVALENT, DISSOLVED	UG/L	Metal
7440382	22678	360	50	69		ARSENIC, DISSOLVED ORGANIC	UG/L	Metal
7440382	22679	850*	50	2319*		ARSENIC, PENTAVALENT,DISSOLVED	UG/L	Metal
7440382	22680	360	50	69		ARSENIC, TRIVALENT, DISSOLVED	UG/L	Metal
7440611	22703		20 <sup>c</sup>			URANIUM, NATURAL DISSOLVED	UG/L	Metal
7440611	22705		20 <sup>c</sup>			URANIUM, NATURAL SUSPENDED	UG/L	Metal
7440611	22706		20 <sup>c</sup>			URANIUM, TOTAL AS U308	UG/L	Metal
7440611	22708		0.020 <sup>c</sup>			URANIUM, NATURAL, TOTAL	MG/L	Radiological
7440611	28011		20 <sup>c</sup>			URANIUM, NATURAL, TOTAL	UG/L	Radiological
88857	30191		7.0			DINOSEB, WATER, WHOLE RECOVERABLE	UG/L	Pesticide
75990	30200		200			DALAPON, WATER, WHOLE RECOVERABLE	UG/L	Pesticide
106934	30203		0.05			ETHANE, 1,2-DIBROMO-, WATER, WHOLE, RECOVERABLE	UG/L	Pesticide
	31501		1.0 <sup>a</sup>		1000 <sup>b</sup>	COLIFORM, TOTAL, MEMBRANE FILTER, IMMED.	CFU/100ML	Bacteriological
	31503		1.0 <sup>a</sup>		1000 <sup>b</sup>	COLIFORM, TOTAL, MEMBRANE FILTER, DELAY. M-ENDO	CFU/100ML	Bacteriological
	31504		1.0 <sup>a</sup>		1000 <sup>b</sup>	COLIFORM, TOTAL, MEMBRANE FILTER, IMMED. LES-ENDO	CFU/100ML	Bacteriological
	31505		1.0 <sup>a</sup>		1000 <sup>b</sup>	COLIFORM, TOTAL, MPN, CONF. TEST 35C (TUBE 31506)	MPN/100ML	Bacteriological
	31506		1.0 <sup>a</sup>		1000 <sup>b</sup>	COLIFORM, TOTAL, MPN, CONF. TEST, TUBE CONFIG	MPN/100ML	Bacteriological
	31507		1.0 <sup>a</sup>		1000 <sup>b</sup>	COLIFORM, TOTAL, MPN, COMP. TEST 35C (TUBE 31508)	MPN/100ML	Bacteriological
	31508		1.0 <sup>a</sup>		1000 <sup>b</sup>	COLIFORM, TOTAL, MPN, COMP. TEST, TUBE CONFIG	MPN/100ML	Bacteriological
	31613				200 <sup>^</sup>	FECAL COLIFORM, MEMBRANE FILTER, AGAR	CFU/100ML	Bacteriological

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
	31614				200^	FECAL COLIFORM, MPN, TUBE CONFIGURATION	MPN/100ML	Bacteriological
	31615				200^	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	MPN/100ML	Bacteriological
	31616				200^	FECAL COLIFORM, MEMBRANE FILTER, BROTH, 44.5C	CFU/100ML	Bacteriological
	31617				200^	FECAL COLIFORM, MPN, EJKMAN, 44.5C (TUBE 31618)	MPN/100ML	Bacteriological
	31625				200^	FECAL COLIFORM, MF, M-FC, 0.7 UM	CFU/100ML	Bacteriological
	31648				126^	E. COLI, MTEC, MF	CFU/100ML	Bacteriological
	31649				33^	ENTEROCOCCI, ME, MF	CFU/100ML	Bacteriological
67663	32003	28900*	100 <sup>t</sup>			CARBON CHLOROFORM AND CARBON ALCOHOL EXTRS.,TOTAL	UG/L	General Organic
67663	32005	28900*	100 <sup>t</sup>			CARBON CHLOROFORM EXTRACTABLES	UG/L	General Organic
67663	32021	28900*	100 <sup>t</sup>			CARBON CHLOROFORM EXTRACTS, ETHER INSOLUBLES OF	UG/L	General Organic
67663	32022	28900*	100 <sup>t</sup>			CARBON CHLOROFORM EXTRACTS, WATER SOLUBLES OF	UG/L	General Organic
75274	32101		100 <sup>t</sup>			BROMODICHLOROMETHANE, WHOLE WATER	UG/L	General Organic
56235	32102	35200*	5.0	50000*		CARBON TETRACHLORIDE, WHOLE WATER	UG/L	General Organic
107062	32103	118000*	5.0	113000*		1,2-DICHLOROETHANE,WHOLE WATER	UG/L	General Organic
75252	32104		100 <sup>t</sup>			BROMOFORM, WHOLE WATER	UG/L	General Organic
124481	32105		100 <sup>t</sup>			DIBROMOCHLOROMETHANE, WHOLE WATER	UG/L	General Organic
67663	32106	28900*	100 <sup>t</sup>			CHLOROFORM, WHOLE WATER	UG/L	General Organic
56235	32260	35.2*	0.005	50*		CARBON TETRACHLORIDE EXTRACTABLES	MG/L	General Organic
67663	32270	28.9*	0.1 <sup>t</sup>			CHLOROFORM EXTRACTABLES TOTAL	MG/L	General Organic
108883	34010	17500*	1000	6300*		TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
1330207	34020		10000			XYLENES IN WTR SMPLE GC-MS, HEXADECONE EXTR.	UG/L	General Organic
83329	34205	1700*		970*		ACENAPHTHENE, TOTAL	UG/L	General Organic
83329	34206	1700*		970*		ACENAPHTHENE, DISSOLVED	UG/L	General Organic
83329	34207	1700*		970*		ACENAPHTHENE, SUSPENDED	UG/L	General Organic
107028	34210	68*		55*		ACROLEIN, TOTAL	UG/L	Pesticide
107028	34211	68*		55*		ACROLEIN, DISSOLVED	UG/L	Pesticide
107028	34212	68*		55*		ACROLEIN, SUSPENDED	UG/L	Pesticide
107131	34215	7550*				ACRYLONITRILE, TOTAL	UG/L	General Organic
107131	34216	7550*				ACRYLONITRILE, DISSOLVED	UG/L	General Organic
107131	34217	7550*				ACRYLONITRILE, SUSPENDED	UG/L	General Organic
71432	34235	5300*	5.0	5100*		BENZENE, DISSOLVED	UG/L	General Organic
71432	34236	5300*	5.0	5100*		BENZENE, SUSPENDED	UG/L	General Organic
92875	34239	2500*				BENZIDINE, DISSOLVED	UG/L	General Organic
92875	34240	2500*				BENZIDINE, SUSPENDED	UG/L	General Organic
58899	34265	2.0	0.2	0.16		R-BHC (LINDANE) GAMMA, DISSOLVED	UG/L	Pesticide
58899	34266	2.0	0.2	0.16		R-BHC (LINDANE) GAMMA, SUSPENDED	UG/L	Pesticide
75252	34288		100 <sup>t</sup>			BROMOFORM, DISSOLVED	UG/L	General Organic
75252	34289		100 <sup>t</sup>			BROMOFORM, SUSPENDED	UG/L	General Organic
56235	34297	35200*	5.0	50000*		CARBON TETRACHLORIDE, DISSOLVED	UG/L	General Organic
56235	34298	35200*	5.0	50000*		CARBON TETRACHLORIDE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
108907	34301		100			CHLOROBENZENE, TOTAL	UG/L	General Organic
108907	34302		100			CHLOROBENZENE, DISSOLVED	UG/L	General Organic
108907	34303		100			CHLOROBENZENE, SUSPENDED	UG/L	General Organic
124481	34306		100 <sup>t</sup>			CHLORODIBROMOMETHANE, TOTAL	UG/L	General Organic
124481	34307		100 <sup>t</sup>			CHLORODIBROMOMETHANE, DISSOLVED	UG/L	General Organic
124481	34308		100 <sup>t</sup>			CHLORODIBROMOMETHANE, SUSPENDED	UG/L	General Organic
67663	34316	28900*	100 <sup>t</sup>			CHLOROFORM, DISSOLVED	UG/L	General Organic
67663	34317	28900*	100 <sup>t</sup>			CHLOROFORM, SUSPENDED	UG/L	General Organic
57125	34325	0.022	0.2	0.001		CYANIDE, SUSPENDED	MG/L	General Inorganic
75274	34328		100 <sup>t</sup>			DICHLOROBROMOMETHANE, DISSOLVED	UG/L	General Organic
75274	34329		100 <sup>t</sup>			DICHLOROBROMOMETHANE, SUSPENDED	UG/L	General Organic
122667	34346	270*				1,2-DIPHENYLHYDRAZINE, TOTAL	UG/L	General Organic
122667	34347	270*				1,2-DIPHENYLHYDRAZINE, DISSOLVED	UG/L	General Organic
122667	34348	270*				1,2-DIPHENYLHYDRAZINE, SUSPENDED	UG/L	General Organic
33213659	34356	0.22		0.034		ENDOSULFAN, BETA, TOTAL	UG/L	Pesticide
33213659	34357	0.22		0.034		ENDOSULFAN, BETA, DISSOLVED	UG/L	Pesticide
33213659	34358	0.22		0.034		ENDOSULFAN, BETA, SUSPENDED	UG/L	Pesticide
959988	34361	0.22		0.034		ENDOSULFAN, ALPHA, TOTAL	UG/L	Pesticide
959988	34362	0.22		0.034		ENDOSULFAN, ALPHA, DISSOLVED	UG/L	Pesticide
959988	34363	0.22		0.034		ENDOSULFAN, ALPHA, SUSPENDED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
100414	34371	32000*	700	430*		ETHYLBENZENE, TOTAL	UG/L	General Organic
100414	34372	32000*	700	430*		ETHYLBENZENE, DISSOLVED	UG/L	General Organic
100414	34373	32000*	700	430*		ETHYLBENZENE, SUSPENDED	UG/L	General Organic
206440	34376	3980*		40*		FLUORANTHENE, TOTAL	UG/L	General Organic
206440	34377	3980*		40*		FLUORANTHENE, DISSOLVED	UG/L	General Organic
206440	34378	3980*		40*		FLUORANTHENE, SUSPENDED	UG/L	General Organic
77474	34386	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, TOTAL	UG/L	General Organic
77474	34387	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, DISSOLVED	UG/L	General Organic
77474	34388	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, SUSPENDED	UG/L	General Organic
87683	34391	90*		32*		HEXACHLOROBUTADIENE, TOTAL	UG/L	General Organic
87683	34392	90*		32*		HEXACHLOROBUTADIENE, DISSOLVED	UG/L	General Organic
87683	34393	90*		32*		HEXACHLOROBUTADIENE, SUSPENDED	UG/L	General Organic
67721	34396	980*		940*		HEXACHLOROETHANE, TOTAL	UG/L	General Organic
67721	34397	980*		940*		HEXACHLOROETHANE, DISSOLVED	UG/L	General Organic
67721	34398	980*		940*		HEXACHLOROETHANE, SUSPENDED	UG/L	General Organic
118741	34401	6.0 <sup>p</sup>	1.0			HEXACHLOROBENZENE, DISSOLVED	UG/L	General Organic
118741	34402	6.0 <sup>p</sup>	1.0			HEXACHLOROBENZENE, SUSPENDED	UG/L	General Organic
193395	34403		0.40 <sup>c</sup>			INDENO (1,2,3-CD) PYRENE, TOTAL	UG/L	General Organic
193395	34404		0.40 <sup>c</sup>			INDENO (1,2,3-CD) PYRENE, DISSOLVED	UG/L	General Organic
193395	34405		0.40 <sup>c</sup>			INDENO (1,2,3-CD) PYRENE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
78591	34408	117000*		12900*		ISOPHORONE, TOTAL	UG/L	Pesticide
78591	34409	117000*		12900*		ISOPHORONE, DISSOLVED	UG/L	Pesticide
78591	34410	117000*		12900*		ISOPHORONE, SUSPENDED	UG/L	Pesticide
75092	34423		5.0			METHYLENE CHLORIDE, TOTAL	UG/L	General Organic
75092	34424		5.0			METHYLENE CHLORIDE, DISSOLVED	UG/L	General Organic
75092	34425		5.0			METHYLENE CHLORIDE, SUSPENDED	UG/L	General Organic
91203	34443	2300*		2350*		NAPHTHALENE, DISSOLVED	UG/L	General Organic
91203	34444	2300*		2350*		NAPHTHALENE, SUSPENDED	UG/L	General Organic
98953	34447	27000*		6680*		NITROBENZENE, TOTAL	UG/L	General Organic
98953	34448	27000*		6680*		NITROBENZENE, DISSOLVED	UG/L	General Organic
98953	34449	27000*		6680*		NITROBENZENE, SUSPENDED	UG/L	General Organic
59507	34452	30*				PARACHLOROMETA CRESOL, TOTAL	UG/L	General Organic
59507	34453	30*				PARACHLOROMETA CRESOL, DISSOLVED	UG/L	General Organic
59507	34454	30*				PARACHLOROMETA CRESOL, SUSPENDED	UG/L	General Organic
87865	34459	20***	1.0	13		PCP (PENTACHLOROPHENOL), DISSOLVED	UG/L	Pesticide
87865	34460	20***	1.0	13		PCP (PENTACHLOROPHENOL), SUSPENDED	UG/L	Pesticide
85018	34461	30 <sup>p</sup>		7.7 <sup>p</sup>		PHENANTHRENE, TOTAL	UG/L	General Organic
85018	34462	30 <sup>p</sup>		7.7 <sup>p</sup>		PHENANTHRENE, DISSOLVED	UG/L	General Organic
85018	34463	30 <sup>p</sup>		7.7 <sup>p</sup>		PHENANTHRENE, SUSPENDED	UG/L	General Organic
108952	34466	10200*		5800*		PHENOL, DISSOLVED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
108952	34467	10200*		5800*		PHENOL, SUSPENDED	UG/L	General Organic
127184	34475	5280*	5.0	10200*		TETRACHLOROETHYLENE, TOTAL	UG/L	General Organic
127184	34476	5280*	5.0	10200*		TETRACHLOROETHYLENE, DISSOLVED	UG/L	General Organic
127184	34477	5280*	5.0	10200*		TETRACHLOROETHYLENE, SUSPENDED	UG/L	General Organic
108883	34481	17500*	1000	6300*		TOLUENE, DISSOLVED	UG/L	General Organic
108883	34482	17500*	1000	6300*		TOLUENE, SUSPENDED	UG/L	General Organic
79016	34485	45000*	5.0	2000*		TRICHLOROETHYLENE, DISSOLVED	UG/L	General Organic
79016	34486	45000*	5.0	2000*		TRICHLOROETHYLENE, SUSPENDED	UG/L	General Organic
75014	34493		2.0			VINYL CHLORIDE, DISSOLVED	UG/L	General Organic
75014	34494		2.0			VINYL CHLORIDE, SUSPENDED	UG/L	General Organic
75354	34501		7.0			1,1-DICHLOROETHYLENE, TOTAL	UG/L	General Organic
75354	34502		7.0			1,1-DICHLOROETHYLENE, DISSOLVED	UG/L	General Organic
75354	34503		7.0			1,1-DICHLOROETHYLENE, SUSPENDED	UG/L	General Organic
71556	34506		200	31200*		1,1,1-TRICHLOROETHANE, TOTAL	UG/L	General Organic
71556	34507		200	31200*		1,1,1-TRICHLOROETHANE, DISSOLVED	UG/L	General Organic
71556	34508		200	31200*		1,1,1-TRICHLOROETHANE, SUSPENDED	UG/L	General Organic
79005	34511		5.0			1,1,2-TRICHLOROETHANE, TOTAL	UG/L	General Organic
79005	34512		5.0			1,1,2-TRICHLOROETHANE, DISSOLVED	UG/L	General Organic
79005	34513		5.0			1,1,2-TRICHLOROETHANE, SUSPENDED	UG/L	General Organic
79345	34516			9020*		1,1,2,2-TETRACHLOROETHANE, TOTAL	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
79345	34517			9020*		1,1,2,2-TETRACHLOROETHANE, DISSOLVED	UG/L	General Organic
79345	34518			9020*		1,1,2,2-TETRACHLOROETHANE, SUSPENDED	UG/L	General Organic
107062	34531	118000*	5.0	113000*		1,2-DICHLOROETHANE, TOTAL	UG/L	General Organic
107062	34532	118000*	5.0	113000*		1,2-DICHLOROETHANE, DISSOLVED	UG/L	General Organic
107062	34533	118000*	5.0	113000*		1,2-DICHLOROETHANE, SUSPENDED	UG/L	General Organic
95501	34536		600			1,2-DICHLOROBENZENE, TOTAL	UG/L	General Organic
95501	34537		600			1,2-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
95501	34538		600			1,2-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic
78875	34541		5.0			1,2-DICHLOROPROPANE, TOTAL	UG/L	General Organic
78875	34542		5.0			1,2-DICHLOROPROPANE, DISSOLVED	UG/L	General Organic
78875	34543		5.0			1,2-DICHLOROPROPANE, SUSPENDED	UG/L	General Organic
156605	34546		100			TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER	UG/L	General Organic
156605	34547		100			TRANS-1,2-DICHLOROETHENE, DISSOLVED	UG/L	General Organic
156605	34548		100			TRANS-1,2-DICHLOROETHENE, SUSPENDED	UG/L	General Organic
120821	34551		70			1,2,4-TRICHLOROBENZENE, TOTAL	UG/L	General Organic
120821	34552		70			1,2,4-TRICHLOROBENZENE, DISSOLVED	UG/L	General Organic
120821	34553		70			1,2,4-TRICHLOROBENZENE, SUSPENDED	UG/L	General Organic
541731	34566		600			1,3-DICHLOROBENZENE, TOTAL	UG/L	General Organic
541731	34567		600			1,3-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
541731	34568		600			1,3-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
106467	34571		75			1,4-DICHLOROBENZENE, TOTAL	UG/L	General Organic
106467	34572		75			1,4-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
106467	34573		75			1,4-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic
95578	34586	4380*				2-CHLOROPHENOL, TOTAL	UG/L	General Organic
95578	34587	4380*				2-CHLOROPHENOL, DISSOLVED	UG/L	General Organic
95578	34588	4380*				2-CHLOROPHENOL, SUSPENDED	UG/L	General Organic
120832	34601	2020*				2,4-DICHLOROPHENOL, TOTAL	UG/L	General Organic
120832	34602	2020*				2,4-DICHLOROPHENOL, DISSOLVED	UG/L	General Organic
120832	34603	2020*				2,4-DICHLOROPHENOL, SUSPENDED	UG/L	General Organic
105679	34606	2120*				2,4-DIMETHYLPHENOL, TOTAL	UG/L	General Organic
105679	34607	2120*				2,4-DIMETHYLPHENOL, DISSOLVED	UG/L	General Organic
105679	34608	2120*				2,4-DIMETHYLPHENOL, SUSPENDED	UG/L	General Organic
121142	34611	330*		590*		2,4-DINITROTOLUENE, TOTAL	UG/L	General Organic
121142	34612	330*		590*		2,4-DINITROTOLUENE, DISSOLVED	UG/L	General Organic
121142	34613	330*		590*		2,4-DINITROTOLUENE, SUSPENDED	UG/L	General Organic
72548	34651	0.6*		3.6*		P,P'-DDD, DISSOLVED	UG/L	Pesticide
72548	34652	0.6*		3.6*		P,P'-DDD, SUSPENDED	UG/L	Pesticide
72559	34653	1050*		14*		P,P'-DDE, DISSOLVED	UG/L	Pesticide
72559	34654	1050*		14*		P,P'-DDE, SUSPENDED	UG/L	Pesticide
50293	34655	1.1		0.13		P,P'-DDT, DISSOLVED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
50293	34656	1.1		0.13		P,P'-DDT, SUSPENDED	UG/L	Pesticide
1746016	34675	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), TOT	UG/L	General Organic
1746016	34676	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), DISS	UG/L	General Organic
1746016	34677	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), SUSP	UG/L	General Organic
108952	34694	10200*		5800*		PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	UG/L	General Organic
91203	34696	2300*		2350*		NAPHTHALENE, TOTAL	UG/L	General Organic
75990	38432		200			DALAPON, WATER, TOTAL	UG/L	Pesticide
75990	38433		200			DALAPON, WATER, DISSOLVED	UG/L	Pesticide
75990	38434		200			DALAPON, WATER, SUSPENDED	UG/L	Pesticide
96128	38437		0.2			DIBROMOCHLOROPROPANE, WATER, TOTAL	UG/L	Pesticide
96128	38438		0.2			DIBROMOCHLOROPROPANE, WATER, DISSOLVED	UG/L	Pesticide
96128	38439		0.2			DIBROMOCHLOROPROPANE WATER, SUSPENDED	UG/L	Pesticide
96128	38760		0.2			DBCP, WATER, TOTAL	UG/L	Pesticide
96128	38761		0.2			DBCP, WATER, DISSOLVED	UG/L	Pesticide
96128	38762		0.2			DBCP, WATER, SUSPENDED	UG/L	Pesticide
88857	38779		7.0			DINOSEB, DISSOLVED	UG/L	Pesticide
88857	38780		7.0			DINOSEB, SUSPENDED	UG/L	Pesticide
23135220	38865		200			OXAMYL, TOTAL	UG/L	Pesticide
23135220	38866		200			OXAMYL, DISSOLVED	UG/L	Pesticide
23135220	38867		200			OXAMYL, SUSPENDED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
145733	38926		100			ENDOTHALL, WHOLE WATER SAMPLE	UG/L	Pesticide
2921882	38932	0.083		0.011		CHLORPYRIFOS, TOTAL RECOVERABLE	UG/L	Pesticide
2921882	38933	0.083		0.011		CHLORPYRIFOS, DISSOLVED	UG/L	Pesticide
2163806	38935		50			MONOSODIUM METHANEARSONATE (MSMA)	UG/L	Pesticide
2921882	39012	0.083		0.011		DURSBAN, FLAME PHOTOMETRIC, WATER SAMPLE	UG/L	Pesticide
56382	39015	0.065				ETHYLPARATHION, FLAME IONIFICATION, WATER SAMPLE	UG/L	Pesticide
122349	39025		4.0			SIMAZINE, COULSON CONDUCTIVITY WATER SAMPLE	UG/L	Pesticide
87865	39032	20***	1.0	13		PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE	UG/L	Pesticide
1912249	39033		3.0			ATRAZINE IN WHOLE WATER SAMPLE	UG/L	Pesticide
118741	39039	6.0 <sup>b</sup>	1.0			HEXACHLOROBENZENE WATER SAMPLE, ELECTRON CPT	UG/L	Pesticide
93721	39045		50			2,4,5-TP INCLUDES ACIDS & SALTS WATER SAMPLE	UG/L	Pesticide
116063	39053		3.0			ALDICARB IN WHOLE WATER	UG/L	Pesticide
122349	39055		4.0			SIMAZINE IN WHOLE WATER	UG/L	Pesticide
117817	39100	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	UG/L	General Organic
117817	39103	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, DISSOLVED	UG/L	General Organic
117817	39104	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, SUSPENDED	UG/L	General Organic
	39117	0.94*		2.994*		PHTHALATE ESTERS IN WATER	MG/L	General Organic
75014	39175		2.0			VINYL CHLORIDE-WHOLE WATER SAMPLE	UG/L	General Organic
79016	39180	45000*	5.0	2000*		TRICHLOROETHYLENE-WHOLE WATER SAMPLE	UG/L	General Organic
50293	39300	1.1		0.13		P,P' DDT IN WHOLE WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
72548	39310	0.6*		3.6*		P,P' DDD IN WHOLE WATER SAMPLE	UG/L	Pesticide
72559	39320	1050*		14*		P,P' DDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
309002	39330	3.0		1.3		ALDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
309002	39331	3.0		1.3		ALDRIN IN FILT. FRAC. OF WAT. SAMP.	UG/L	Pesticide
309002	39332	3.0		1.3		ALDRIN IN SUSP. FRAC. OF WAT. SAMP.	UG/L	Pesticide
58899	39340	2.0	0.2	0.16		GAMMA-BHC(LINDANE), WHOLE WATER	UG/L	Pesticide
58899	39341	2.0	0.2	0.16		GAMMA-BHC(LINDANE), DISSOLVED	UG/L	Pesticide
58899	39342	2.0	0.2	0.16		GAMMA-BHC(LINDANE), SUSPENDED	UG/L	Pesticide
57749	39350	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), WHOLE WATER	UG/L	Pesticide
57749	39352	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), DISSOLVED	UG/L	Pesticide
57749	39353	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), SUSPENDED	UG/L	Pesticide
72548	39360	0.6*		3.6*		DDD IN WHOLE WATER SAMPLE	UG/L	Pesticide
72548	39361	0.6*		3.6*		DDD IN FILT. FRAC. OF WATER SMAPLE	UG/L	Pesticide
72548	39362	0.6*		3.6*		DDD IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72559	39365	1050*		14*		DDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
72559	39366	1050*		14*		DDE IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72559	39367	1050*		14*		DDE IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
50293	39370	1.1		0.13		DDT IN WHOLE WATER SAMPLE	UG/L	Pesticide
50293	39371	1.1		0.13		DDT IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
50293	39372	1.1		0.13		DDT IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
60571	39380	2.5		0.71		DIELDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
60571	39381	2.5		0.71		DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
60571	39382	2.5		0.71		DIELDRIN IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
115297	39388	0.22		0.034		ENDOSULFAN IN WHOLE WATER SAMPLE	UG/L	Pesticide
72208	39390	0.18	2.0	0.037		ENDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
72208	39391	0.18	2.0	0.037		ENDRIN IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72208	39392	0.18	2.0	0.037		ENDRIN IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
8001352	39400	0.73	3.0	0.21		TOXAPHENE IN WHOLE WATER SAMPLE	UG/L	Pesticide
8001352	39401	0.73	3.0	0.21		TOXAPHENE IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
8001352	39402	0.73	3.0	0.21		TOXAPHENE IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
76448	39410	0.52	0.4	0.053		HEPTACHLOR IN WHOLE WATER SAMPLE	UG/L	Pesticide
76448	39411	0.52	0.4	0.053		HEPTACHLOR IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
76448	39412	0.52	0.4	0.053		HEPTACHLOR IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
1024573	39420	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
1024573	39421	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN FILT. FRAC. WATER SAMPLE	UG/L	Pesticide
1024573	39422	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN SUSP. FRAC. WATER SAMPLE	UG/L	Pesticide
72435	39478		40			METHOXYCHLOR IN WHOLE WATER DISSOLVED	UG/L	Pesticide
72435	39479		40			METHOXYCHLOR IN WHOLE WATER SUSPENDED	UG/L	Pesticide
72435	39480		40			METHOXYCHLOR IN WHOLE WATER SAMPLE	UG/L	Pesticide
56382	39540	0.065				PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
56382	39542	0.065				PARATHION IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
56382	39543	0.065				PARATHION IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
1912249	39630		3.0			ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	UG/L	Pesticide
1912249	39632		3.0			ATRAZINE DISSOLVED IN WATER	PPB	Pesticide
118741	39700	6.0 <sup>p</sup>	1.0			HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	UG/L	General Organic
87683	39702	90*		32*		HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE	UG/L	General Organic
1918021	39720		500			PICLORAM IN WHOLE WATER SAMPLE	UG/L	Pesticide
94757	39730		70			2,4-D IN WHOLE WATER SAMPLE	UG/L	Pesticide
94757	39732		70			2,4-D IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
94757	39733		70			2,4-D IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
93721	39760		50			SILVEX IN WHOLE WATER SAMPLE	UG/L	Pesticide
93721	39762		50			SILVEX IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
93721	39763		50			SILVEX IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
58899	39782	2.0	0.2	0.16		LINDANE IN WHOLE WATER SAMPLE	UG/L	Pesticide
1071836	39941		700			ROUNDUP IN WHOLE WATER SAMPLE (GLYPHOSATE)	UG/L	Pesticide
7782505	45650	0.019		0.013		CHLORINE, IN ORGANIC COMPOUNDS, WATER, WHOLE	MG/L	General Inorganic
56382	46315	0.065				ETHYL PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide
58899	46322	2.0	0.2	0.16		LINDANE PLUS ISOMERS IN WHOLE WATER SAMPLE	UG/L	Pesticide
76448	46326	0.52	0.4	0.053		HEPTACHLOR AND METABOLITES IN WHOLE H2O SAMPLE	UG/L	Pesticide
15972608	46342		2.0			ALACHLOR (LASSO), WATER, DISSOLVED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782505	46472	0.019		0.013		CHLORINE, TOTAL RESIDUAL, AVERAGE VALUE, WATER	MG/L	General Inorganic
7782505	46473	0.019		0.013		CHLORINE, FREE AVAILABLE, AVERAGE VALUE, WATER	MG/L	General Inorganic
57125	46479	22	200	1.0		CYANIDE, DISSOLVED, WATER	UG/L	General Inorganic
7440382	46551	360	50	69		ARSENIC, FIELD ACIDIFIED W/HNO3, LAB FILTERED	UG/L	Metal
7440393	46558		2000			BARIUM, FIELD ACIDIFIED W/HNO3-LAB FILT	UG/L	Metal
7440439	46559	3.9 <sup>+</sup>	5.0	43		CADMIUM, FIELD ACIDIFIED-HNO3-LAB FILTER	UG/L	Metal
7440473	46560		100			CHROMIUM, FIELD ACIDIFIED-HNO3-LAB FILT.	UG/L	Metal
7440508	46562	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, FIELD ACIDIFIED-HNO3- LAB FILTER.	UG/L	Metal
7439921	46564	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD, FIELD ACIDIFIED-HNO3-LAB FILTERED	UG/L	Metal
7440224	46566	4.1 <sup>+</sup>	100 <sup>s</sup>	0.12		SILVER, FIELD ACIDIFIED-HNO3-LAB FILTER.	UG/L	Metal
7440666	46567	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, EXTRACTABLE, FIELD ACID W/HNO3,LAB FILTR	UG/L	Metal
56382	49011	0.065				UNKNOWN AS PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide
7782505	50058	0.019		0.013		CHLORINE DOSE	MG/L	General Inorganic
7782505	50060	0.019		0.013		CHLORINE, TOTAL RESIDUAL	MG/L	General Inorganic
7782505	50064	0.019		0.013		CHLORINE, FREE AVAILABLE	MG/L	General Inorganic
7782505	50066	0.019		0.013		CHLORINE, COMBINED AVAILABLE	MG/L	General Inorganic
7782505	50074	0.019		0.013		CHLORITE, WHOLE WATER	MG/L	General Inorganic
	61215				200 <sup>^</sup>	FECAL COLIFORM, GENERAL #/100ML	#/100ML	Bacteriological
16887006	70352	860	250 <sup>s</sup>			CHLORIDE, ORGANIC	MG/L	General Organic
14797558	71850		44			NITRATE NITROGEN, TOTAL (AS NO3)	MG/L	Nitrogen

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
14797558	71851		44			NITRATE NITROGEN, DISSOLVED (AS NO3)	MG/L	Nitrogen
14797650	71855		3.3			NITRITE NITROGEN, TOTAL (AS NO2)	MG/L	Nitrogen
14797650	71856		3.3			NITRITE NITROGEN, DISSOLVED (AS NO2)	MG/L	Nitrogen
7439976	71890	2.4	2.0	2.1		MERCURY, DISSOLVED	UG/L	Metal
7439976	71895	2.4	2.0	2.1		MERCURY, SUSPENDED	UG/L	Metal
7439976	71900	2.4	2.0	2.1		MERCURY, TOTAL	UG/L	Metal
7439976	71901	2.4	2.0	2.1		MERCURY, TOTAL RECOVERABLE IN WATER AS HG	UG/L	Metal
7440439	71946	3.9 <sup>+</sup>	5.0	43		CADMUM, EXTRACTABLE	UG/L	Metal
7440473	71947		100			CHROMIUM, EXTRACTABLE	UG/L	Metal
7439921	71949	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD, EXTRACTABLE	UG/L	Metal
7440666	71950	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, EXTRACTABLE	UG/L	Metal
7440508	71951	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, EXTRACTABLE	UG/L	Metal
1336363	76011	2000	500	10000		PCBS, SUSPENDED, WATER	NG/L	General Organic
1336363	76012	2000	500	10000		PCBS, TOTAL RECOVERABLE, WATER	NG/L	General Organic
156592	77093		70			CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	UG/L	General Organic
100425	77128		100			STYRENE, WHOLE WATER	UG/L	General Organic
106489	77296			29700*		P-CHLOROPHENOL, WHOLE WATER	UG/L	General Organic
106934	77651		0.05			1,2-DIBROMOETHANE, WHOLE WATER	UG/L	General Organic
95954	77687	100 <sup>p</sup>		240 <sup>p</sup>		2,4,5-TRICHLOROPHENOL, WHOLE WATER	UG/L	General Organic
935955	77769			440*		2,3,5,6-TETRACHLOROPHENOL, WHOLE WATER	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
103231	77903		400			BIS (2-ETHYLHEXYL) ADIPATE, WHOLE WATER	UG/L	General Organic
18540299	78247	16	100	1100		CHROMIUM, HEXAVALENT, TOTAL RECOVERABLE	UG/L	Metal
57125	78248	22	200	1.0		CYANIDE, TOTAL RECOVERABLE, WATER, WHOLE	UG/L	Metal
	78456	11*		12*		HALOMETHANES, SUMMATION, WHOLE WATER	MG/L	General Organic
14808798	78462		250 <sup>s</sup>			SULFATE, WATER, DISSOLVED AS S	MG/L	Metal
85007	78885		20			DIQUAT DIBROMIDE (REGLONE) WHOLE WATER SAMPLE	UG/L	Pesticide
7440611	80020		20 <sup>c</sup>			URANIUM, DISS. BY EXTRACTION FLUOROMETRIC	UG/L	Radiological
16065831	80357	1700	100	10300*		CHROMIUM, TRIVALENT, DISSOLVED	UG/L	Metal
57125	81208	0.022	0.2	0.001		CYANIDE, FREE (NOT AMENABLE TO CHLORINATION)	MG/L	General Inorganic
608731	81283	100*		0.34*		BENZENEHEXACHLORIDE, WHOLE WATER	UG/L	Pesticide
88857	81287		7.0			DNBP(C10H12N2O5), WHOLE WATER SAMPLE	UG/L	Pesticide
26638197	81327	23000*	5.0	10300*		DICHLOROPROPANE, WHOLE WATER SAMPLE	UG/L	General Organic
25321226	81333	1120*		1970*		DICHLOROBENZENE ISOMER, WHOLE WATER SAMPLE	UG/L	General Organic
2921882	81403	0.083		0.011		DURSBAN (CHLOROPYRIFOS) WHOLE WATER SAMPLE	UG/L	Pesticide
1563662	81405		40			CARBOFURAN (EURADAN) WHOLE WATER SAMPLE	UG/L	Pesticide
76017	81501	7240*		390*		PENTACHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
25321226	81524	1120*		1970*		DICHLOROBENZENE, WHOLE WATER SAMPLE	UG/L	General Organic
25322207	81549	9320*				TETRACHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
26638197	81703	23*	0.005*	10.3*		DICHLOROPROPANE, WHOLE WATER SAMPLE	MG/L	General Organic
7440508	81750	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, INTERSTITIAL WATERFROM SEDIMENTS	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440020	81752	1400 <sup>+</sup>	100	75		NICKEL, INTERSTITIAL WATER FROM SEDIMENTS	UG/L	Metal
7440666	81754	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, INTERSTITIAL WATER FROM SEDIMENTS	UG/L	Metal
25323891	81853	18000 <sup>*</sup>				TRICHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
7439976	81931	2.4	2.0	2.1		MERCURY (HG) SUSPENDED FRACTION OF WATER	UG/G	Metal
7440666	81933	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC (ZN) SUSPENDED FRACTION OF WATER	UG/G	Metal
7439921	81936	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD (PB) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440439	81937	3.9 <sup>+</sup>	5.0	43		CADMUM (CD) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440473	81938		100			CHROMIUM (CR) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440508	81939	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER (CU) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440666	81940	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC (ZN) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440473	81941		100			CHROMIUM (CR) DISSOLVED ANIONIC SPECIES	UG/L	Metal
7440508	81942	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER (CU) DISSOLVED ANIONIC SPECIES	UG/L	Metal
7440666	81943	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC (ZN) DISSOLVED ANIONIC SPECIES	UG/L	Metal
	82078			50 <sup>f</sup>	TURBIDITY, FIELD	NTU	Physical	
	82079			50 <sup>f</sup>	TURBIDITY, LAB	NTU	Physical	
88857	82226		7.0		2 SECONDARY BUTYL 4,6-DINITROPHENOL	UG/L	Pesticide	
16887006	82295	860000	250000 <sup>s</sup>		CHLORIDE DISSOLVED AS CL IN WATER	UG/L	General Inorganic	
72435	82350		40		METHOXYCHLOR, DISSOLVED IN WATER	UG/L	Pesticide	
72435	82351		40		METHOXYCHLOR, SUSPENDED IN WATER	UG/L	Pesticide	
115297	82354	0.22		0.034	ENDOSULFAN, DISSOLVED IN WATER	UG/L	Pesticide	

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
115297	82355	0.22		0.034		ENDOSULFAN, SUSPENDED IN WATER	UG/L	Pesticide
57125	82573	0.022	0.2	0.001		CYANIDE/CHLORINATION IN WATER	MG/L	General Inorganic
1646873	82586		4.0			ALDICARB SULFOXIDE, WATER, TOTAL RECOVERABLE	UG/L	General Organic
1646884	82587		2.0			ALDICARB SULFONE, WHOLE WATER, TOTAL RECOVERABLE	UG/L	General Organic
23135220	82613		200			OXAMYL, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
1563662	82615		40			CARBOFURAN, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
116063	82619		3.0			ALDICARB, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
33213659	82624	0.22		0.034		ENDOSULFAN, BETA, WH WATER, TOTAL RECOVERABLE	UG/L	Pesticide
96128	82625		0.2			DIBROMOCHLOROPROPANE, WATER, TOTAL RECOVERABLE	UG/L	Pesticide
7440382	82702	360	50	69		ARSENIC, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440393	82703		2			BARIUM, FIELD ACIDIFIED, DECANTED, WATER	MG/L	Metal
7440417	82704	130 <sup>*</sup>	4.0			BERYLLIUM, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440439	82705	3.9 <sup>+</sup>	5.0	43		CADMIUM, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440473	82706		100			CHROMIUM, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440508	82708	18 <sup>+</sup>	1300 <sup>a</sup>	2.9		COPPER, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7439921	82711	82 <sup>+</sup>	15 <sup>a</sup>	220		LEAD, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7439976	82713	2.4	2.0	2.1		MERCURY, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440020	82715	1400 <sup>+</sup>	100	75		NICKEL, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440224	82716	4.1 <sup>+</sup>	100 <sup>s</sup>	0.12		SILVER, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440666	82719	120 <sup>+</sup>	5000 <sup>s</sup>	95		ZINC, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal

**Footnote Key:**

<sup>\*</sup>Insufficient Data to Develop Criteria. Value Presented is the L.O.E.L. - Lowest Observed Effect Level.

<sup>+</sup>Hardness Dependent Criteria (100 mg/L CaCO<sub>3</sub> Used).

<sup>\*\*\*</sup>pH Dependent Criteria (7.8 pH Used).

<sup>=</sup>Rule of thumb criterion used by the NPS Air Quality Division for determining sensitivity to acid deposition.

<sup>^</sup>Freshwater bathing criterion, EPA geometric mean based on at least 5 samples equally spaced over a 30-day period; Enterococci marine water bathing criterion 35 CFU/100 ml.

<sup>#</sup>EPA freshwater aquatic life chronic criterion; marine criterion is  $\leq 6.5$ ,  $\geq 8.5$ .

<sup>!</sup>Arizona state standard.

<sup>a</sup>EPA action level, 40 CFR 141.80.

<sup>b</sup>California and Florida state bathing water standards.

<sup>c</sup>A Compilation of Water Quality Goals, California Regional Water Quality Control Board Central Valley Region, Sacramento, California, September, 1991.

<sup>n</sup>Total coliform drinking water maximum contaminant level (1 cfu/100ml or 1 mpn/100ml) was not used in water quality criteria comparisons.

<sup>p</sup>Proposed Criterion.

<sup>r</sup>Average annual concentration assumed to produce a total body or organ dose of 4 mrem/year, 40 CFR 141.16.

<sup>s</sup>EPA National Secondary Drinking Water Regulation, 40 CFR 143.

<sup>t</sup>The maximum contaminant level for the sum of the concentrations of trihalomethanes is 100 µg/L, 40 CFR 141.12.

<sup>u</sup>Coldwater criterion one day minimum; warmwater criterion seven day mean minimum.



## Appendix G

### Inventory Data Evaluation and Analysis (IDEA) Servicewide Inventory and Monitoring Program "Level I" Parameter Groups

The following table provides the Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameter groups (National Park Service 1993). In order to determine the presence and/or absence of data for each of these parameter groups in the park, the parameter groups had to be defined by STORET parameter codes. This table provides the STORET codes and parameter descriptions for each parameter comprising one of the Servicewide Inventory and Monitoring Program's "Level I" water quality parameter groups. Additional parameters could have been incorporated into each group, but an effort was made to represent each group with the parameters deemed to most likely occur in STORET and parks. The Toxic Elements Parameter Group was defined as the EPA's Clean Water Act Section 304(a) Priority Toxic Pollutants (40 CFR 131.36). Parameters are listed in ascending order of STORET code within each parameter group. It is important to note that similar parameters often have non-consecutive codes. Consequently, scanning the entire list is necessary to find all the parameters of a particular type (eg. lead, copper, etc.). Refer to the Parameter Period of Record Tabulation to obtain the STORET code for any parameter measured in the park.

STORET Code	Water Temperature Parameter Group	C.A.S. Number
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	-
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	-
STORET Code	Flow Parameter Group <sup>1</sup>	C.A.S. Number
00056	FLOW RATE, GALLONS/DAY	-
00058	FLOW RATE, GALLONS/MIN.	-
00059	FLOW RATE, INSTANTANEOUS, GALLONS/MINUTE	-
00060	FLOW, STREAM, MEAN DAILY CFS	-
00061	FLOW, STREAM, INSTANTANEOUS CFS	-
00065	STAGE, STREAM (FEET)	-
00067	TIDE STAGE CODE	-
00072	STAGE, STREAM (METERS)	-

<sup>1</sup>Tide stage is included in the Flow Parameter Group for coastal parks.

<b>STORET Code</b>	<b>Clarity/Turbidity Parameter Group</b>	<b>C.A.S. Number</b>
00070	TURBIDITY, (JACKSON CANDLE UNITS)	-
00075	TURBIDITY, HELLIGE (PPM AS SILICON DIOXIDE)	-
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	-
00077	TRANSPARENCY, SECCHI DISC (INCHES)	-
00078	TRANSPARENCY, SECCHI DISC (METERS)	-
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	-
82078	TURBIDITY, FIELD NEPHELOMETRIC TURBIDITY UNITS NTU	-
82079	TURBIDITY, LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	-
<hr/>		
<b>STORET Code</b>	<b>Conductivity Parameter Group</b>	<b>C.A.S. Number</b>
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	-
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	-
00096	SALINITY AT 25 DEGREES C (MG/ML)	-
00480	SALINITY - PARTS PER THOUSAND	-
<hr/>		
<b>STORET Code</b>	<b>Dissolved Oxygen Parameter Group</b>	<b>C.A.S. Number</b>
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	7782447
00300	OXYGEN, DISSOLVED (MG/L)	7782447
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION	7782447
00389	OXYGEN, DISSOLVED, LAB ANAL. BY PROBE OF FIELD SAMPLE (MG/L)	7782447
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<b>STORET Code</b>	<b>pH Parameter Group</b>	<b>C.A.S. Number</b>
00400	PH (STANDARD UNITS)	-
00403	PH, LAB (STANDARD UNITS)	-
00406	PH, FIELD (STANDARD UNITS)	-

<b>STORET Code</b>	<b>Alkalinity Parameter Group</b>	<b>C.A.S. Number</b>
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS ( $\mu\text{EQ/L}$ )	471341
00410	ALKALINITY, TOTAL (MG/L AS $\text{CACO}_3$ )	471341
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	77098
00430	ALKALINITY, CARBONATE (MG/L AS $\text{CACO}_3$ )	471341
00435	ACIDITY, TOTAL (MG/L AS $\text{CACO}_3$ )	471341
00440	BICARBONATE ION (MG/L AS $\text{HCO}_3$ )	71523
00445	CARBONATE ION (MG/L AS $\text{CO}_3$ )	3812326
<b>STORET Code</b>	<b>Nitrate/Nitrogen Parameter Group</b>	<b>C.A.S. Number</b>
00600	NITROGEN, TOTAL (MG/L AS N)	17778880
00602	NITROGEN, DISSOLVED (MG/L AS N)	17778880
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	17778880
00607	NITROGEN, ORGANIC, DISSOLVED (MG/L AS N)	17778880
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	17778880
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	17778880
00612	AMMONIA, UNIONIZED (MG/L AS N)	7664417
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	17778880
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	17778880
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	17778880
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)	17778880
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	17778880
00631	NITRITE PLUS NITRATE, DISSOLVED 1 DET. (MG/L AS N)	17778880
71845	NITROGEN, AMMONIA, TOTAL (MG/L AS $\text{NH}_4$ )	14798039
71846	NITROGEN, AMMONIA, DISSOLVED (MG/L AS $\text{NH}_4$ )	14798039
71850	NITRATE NITROGEN, TOTAL (MG/L AS $\text{NO}_3$ )	14797558
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS $\text{NO}_3$ )	14797558
71855	NITRITE NITROGEN, TOTAL (MG/L AS $\text{NO}_2$ )	14797650
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS $\text{NO}_2$ )	14797650

Parameter Group		
STORET Code	Parameter Description	C.A.S. Number
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	14265442
00655	PHOSPHATE, POLY (MG/L AS PO4)	14265442
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	14265442
00665	PHOSPHORUS, TOTAL (MG/L AS P)	7723140
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	7723140
00670	PHOSPHORUS, TOTAL ORGANIC (MG/L AS P)	7723140
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	7723140
70505	PHOSPHORUS, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	7723140
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	7723140
Parameter Group		
STORET Code	Parameter Description	C.A.S. Number
00900	HARDNESS, TOTAL (MG/L AS CACO3)	471341
00945	SULFATE, TOTAL (MG/L AS SO4)	14808798
00946	SULFATE, DISSOLVED (MG/L AS SO4)	14808798
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	-
Parameter Group		
STORET Code	Parameter Description	C.A.S. Number
32209	CHLOROPHYLL A (UG/L) FLUOROMETRIC CORRECTED	479618
32210	CHLOROPHYLL A (UG/L) TRICHROMATIC UNCORRECTED	479618
32211	CHLOROPHYLL A (UG/L) SPECTROPHOTOMETRIC ACID METH.	479618
32217	CHLOROPHYLL A (UG/L) FLUOROMETRIC UNCORRECTED	479618
32223	CHLOROPHYLL A (MG/M2) SPECTROPHOTOMETRIC CORRECTED	479618
32228	CHLOROPHYLL A (MG/M2) PERIPHYTON SPECTRO.	479618
32229	CHLOROPHYLL A (MG/M2) FLUOR. CORRECTED, SUBSTRATER	479618
32230	CHLOROPHYLL A (MG/L)	479618

<b>STORET Code</b>	<b>Bacteria Parameter Group</b>	<b>C.A.S. Number</b>
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI	-
31501	COLIFORM, TOT, MEMBRANE FILTER, IMMED., M-ENDO MED,35C	-
31503	COLIFORM, TOT, MEMBRANE FILTER, DELAY, M-ENDO MED, 35C	-
31504	COLIFORM, TOT, MEMBRANE FILTER, IMMED., LES-ENDO AGAR, 35C	-
31505	COLIFORM, TOT, MPN, CONFIRMED TEST,35C(TUBE 31506)	-
31506	COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	-
31507	COLIFORM, TOT, MPN, COMPLETED TEST,35C(TUBE 31508)	-
31508	COLIFORM, TOT, MPN, COMPLETED TEST, TUBE CONFIG.	-
31613	FECAL COLIFORM, MEMBR, FILTER,M-FC AGAR,44.5C,24HR	-
31614	FECAL COLIFORM, MPN, TUBE CONFIGURATION	-
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	-
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5C	-
31617	FECAL COLIFORM, MPN,EIJKMAN TEST,44.5C(TUBE 31618)	-
31625	FECAL COLIFORM, MF, M-FC, 0.7 UM	-
31648	E. COLI - MTEC-MF	-
31649	ENTEROCOCCI- ME-MF	-
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	-
31676	FECAL STREPTOCOCCI, MPN, KF BROTH, TUBE CONFIG.	-
31677	FECAL STREPTOCOCCI, MPN, AD-EVA, 35C (TUBE 31678)	-
31751	PLATE COUNT, TOTAL, TPC AGAR, 35C, 24 HRS	-
61214	FECAL STREPTOCOCCI, GENERAL #/100ML	-
61215	FECAL COLIFORM, GENERAL #/100ML	-

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants)</b>	<b>C.A.S. Number</b>
00718	CYANIDE, WEAK ACID, DISSOC. WATER, WHOLE (UG/L)	57125
00719	CYANIDE, FREE, IN WATER & WASTEWATERS, HBG (UG/L)	57125
00720	CYANIDE, TOTAL (MG/L AS CN)	57125
00722	CYANIDE, FREE (AMENABLE TO CHLORINATION) (MG/L)	57125

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
00723	CYANIDE, DISSOLVED STD METHOD (UG/L)	57125
00724	CYANIDE COMPLEXED TO A RANGE OF COMPNDS (UG/L)	57125
00969	CHRYSOTILE ASBESTOS FIBERS/LITER	1332214
00973	AMPHIBOLE ASBESTOS FIBERS/LITER	1332214
00976	AMBIGUOUS ASBESTOS FIBERS/LITER	1332214
00977	NON-AMPHIBOLE NON-CHRYSOTILE ASBESTOS FIBERS/LITER	1332214
00978	ARSENIC, TOTAL RECOVERABLE IN WATER AS AS	7440382
00981	SELENIUM, TOTAL RECOVERABLE IN WATER AS SE (UG/L)	7782492
00982	THALLIUM, TOTAL RECOVERABLE IN WATER AS (UG/L)	7440280
00990	SELENITE, TOTAL RECOVERABLE INORGANIC (UG/L)	7782492
00991	ARSENIC, TOTAL RECOVER. TRIVALENT INORGANIC (UG/L)	7440382
00995	ARSENIC, INORGANIC DISSOLVED (UG/L AS AS)	7440382
00996	ARSENIC, INORGANIC SUSPENDED (UG/L AS AS)	7440382
00997	ARSENIC, INORGANIC TOTAL (UG/L AS AS)	7440382
00998	BERYLLIUM, TOTAL RECOVERABLE IN WATER AS BE (UG/L)	7440417
01000	ARSENIC, DISSOLVED (UG/L AS AS)	7440382
01001	ARSENIC, SUSPENDED (UG/L AS AS)	7440382
01002	ARSENIC, TOTAL (UG/L AS AS)	7440382
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	7440417
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)	7440417
01012	BERYLLIUM, TOTAL (UG/L AS BE)	7440417
01025	CADMIUM, DISSOLVED (UG/L AS CD)	7440439
01026	CADMIUM, SUSPENDED (UG/L AS CD)	7440439
01027	CADMIUM, TOTAL (UG/L AS CD)	7440439
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	7440473
01031	CHROMIUM, SUSPENDED (UG/L AS CR)	7440473
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	7440473
01033	CHROMIUM, TRI-VAL (UG/L AS CR)	16065831
01034	CHROMIUM, TOTAL (UG/L AS CR)	7440473

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
01040	COPPER, DISSOLVED (UG/L AS CU)	7440508
01041	COPPER, SUSPENDED (UG/L AS CU)	7440508
01042	COPPER, TOTAL (UG/L AS CU)	7440508
01049	LEAD, DISSOLVED (UG/L AS PB)	7439921
01050	LEAD, SUSPENDED (UG/L AS PB)	7439921
01051	LEAD, TOTAL (UG/L AS PB)	7439921
01057	THALLIUM, DISSOLVED (UG/L AS TL)	7440280
01058	THALLIUM, SUSPENDED (UG/L AS TL)	7440280
01059	THALLIUM, TOTAL (UG/L AS TL)	7440280
01065	NICKEL, DISSOLVED (UG/L AS NI)	7440020
01066	NICKEL, SUSPENDED (UG/L AS NI)	7440020
01067	NICKEL, TOTAL (UG/L AS NI)	7440020
01074	NICKEL, TOTAL RECOVERABLE IN WATER AS NI (UG/L)	7440020
01075	SILVER, DISSOLVED (UG/L AS AG)	7440224
01076	SILVER, SUSPENDED (UG/L AS AG)	7440224
01077	SILVER, TOTAL (UG/L AS AG)	7440224
01079	SILVER, TOTAL RECOVERABLE IN WATER AS AG (UG/L)	7440224
01089	COPPER AS SUSPENDED BLACK OXIDE IN WATER (MG/L)	7440508
01090	ZINC, DISSOLVED (UG/L AS ZN)	7440666
01091	ZINC, SUSPENDED (UG/L ZN)	7440666
01092	ZINC, TOTAL (UG/L AS ZN)	7440666
01094	ZINC, TOTAL RECOVERABLE IN WATER AS ZN (UG/L)	7440666
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	7440360
01096	ANTIMONY, SUSPENDED (UG/L AS SB)	7440360
01097	ANTIMONY, TOTAL (UG/L AS SB)	7440360
01113	CADMIUM, TOTAL RECOVERABLE IN WATER AS CD (UG/L)	7440439
01114	LEAD, TOTAL RECOVERABLE IN WATER AS PB (UG/L)	7439921
01118	CHROMIUM, TOTAL RECOVERABLE IN WATER AS CR (UG/L)	7440473
01119	COPPER, TOTAL RECOVERABLE IN WATER AS CU (UG/L)	7440508

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
01124	THALLIUM, ACID SOLUBLE, WATER, WHOLE (UG/L)	7440280
01128	THALLIUM, TOTAL RECOVERABLE <95%, UG/L AS TL	7440280
01138	SELENIUM, IN WATER, LBS/DAY	7782492
01145	SELENIUM, DISSOLVED (UG/L AS SE)	7782492
01146	SELENIUM, SUSPENDED (UG/L AS SE)	7782492
01147	SELENIUM, TOTAL (UG/L AS SE)	7782492
01167	SELENIUM, ACID SOLUBLE, WATER, WHOLE (UG/L)	7782492
01220	CHROMIUM, HEXAVALENT, DISSOLVED IN (UG/L AS CR)	18540299
01252	ARSENIC, LB/DAY/CFS STREAM FLOW	7440382
01253	CADMIUM, LB/DAY/CFS STREAM FLOW	7440439
01254	CHROMIUM, TOTAL (LBS/DAY/CFS STREAM FLOW)	7740473
01255	CHROMIUM, HEXAVALENT, LB/DAY/CFS STREAM FLOW	18540299
01256	COPPER, LB/DAY/CFS STREAM FLOW	7440508
01257	CYANIDE LB/DAY/CFS STREAM FLOW	57125
01259	LEAD, LB/DAY/CFS STREAM FLOW	7439921
01260	MERCURY, LB/DAY/CFS STREAM FLOW	7439976
01261	NICKEL, LB/DAY/CFS STREAM FLOW	7440020
01263	SILVER, LB/DAY/CFS STREAM FLOW	7440224
01264	ZINC LB/DAY/CFS STREAM FLOW	7440666
01268	ANTIMONY, (SB), WATER, TOTAL RECOVERABLE (UG/L)	7440360
01291	CYANIDE, FILTERABLE, TOTAL IN WATER (UG/L)	57125
01303	ZINC, POTENTIALLY DISSOLVED WATER (MG/L)	7440666
01304	SILVER, POTENTIALLY DISSOLVED WATER (MG/L)	7440224
01306	COPPER, POTENTIALLY DISSOLVED WATER (MG/L)	7440508
01307	CHROMIUM, HEXAVALENT, POTENT. DISS. WATER (MG/L)	18540299
01309	ARSENIC, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440382
01312	BERYLLIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440417
01313	CADMIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440439

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
01314	CHROMIUM, TRIVALENT, POTENT., DISS., WATER (MG/L)	16065831
01318	LEAD, POTENTIALLY, DISSOLVED, WATER (MG/L)	7439921
01321	MERCURY, POTENTIALLY, DISSOLVED, WATER (MG/L)	7439976
01322	NICKEL, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440020
01323	SELENIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7782492
01324	THALLIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440280
01523	SILVER, IONIC (UG/L)	7440224
22675	SELENIUM, DISSOLVED ORGANIC (UG/L)	7782492
22676	SELENIUM, HEXAVALENT, DISSOLVED (UG/L)	7782492
22677	SELENIUM, TETRAVALENT, DISSOLVED	7782492
22678	ARSENIC, DISSOLVED ORGANIC (UG/L)	7440382
22679	ARSENIC, PENTAVALENT, DISSOLVED (UG/L)	7440382
22680	ARSENIC, TRIVALENT, DISSOLVED (UG/L)	7440382
30197	2-CHLOROETHYL VINYL ETHER, WATER, WHL, RECOVER (UG/L)	110758
30201	CHLOROMETHANE, WATER, WHOLE, RECOVERABLE (UG/L)	74873
30202	BROMOMETHANE, WATER, WHOLE, RECOVERABLE (UG/L)	74839
32003	CARBON CHLOROFORM AND CARBON ALCOHOL EXT. (UG/L)	67663
32005	CARBON CHLOROFORM EXTRACTABLES (UG/L)	67663
32021	CARBON CHLOROFORM EXTRACTS, ETHER INSOLUBLE (UG/L)	67663
32022	CARBON CHLOROFORM EXTRACTS, WATER SOLUBLES (UG/L)	67663
32101	BROMODICHLOROMETHANE, WHOLE WATER (UG/L)	75274
32102	CARBON TETRACHLORIDE, WHOLE WATER, (UG/L)	56235
32103	1,2-DICHLOROETHANE, WHOLE WATER (UG/L)	107062
32104	BROMOFORM, WHOLE WATER, (UG/L)	75252
32105	DIBROMOCHLOROMETHANE, WHOLE WATER, (UG/L)	124481
32106	CHLOROFORM, WHOLE WATER (UG/L)	67663
32260	CARBON TETRACHLORIDE EXTRACTABLES (MG/L)	56235
32270	CHLOROFORM EXTRACTABLES TOTAL IN MG PER LITER	67663

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	108883
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	71432
34198	BHC-DELTA, WATER, WHOLE (LBS/DAY)	319868
34200	ACENAPHTHYLENE, TOTAL (UG/L)	208968
34201	ACENAPHTHYLENE, DISSOLVED (UG/L)	208968
34202	ACENAPHTHYLENE, SUSPENDED (UG/L)	208968
34205	ACENAPHTHENE, TOTAL (UG/L)	83329
34206	ACENAPHTHENE, DISSOLVED (UG/L)	83329
34207	ACENAPHTHENE, SUSPENDED (UG/L)	83329
34210	ACROLEIN, TOTAL (UG/L)	107028
34211	ACROLEIN, DISSOLVED (UG/L)	107028
34212	ACROLEIN, SUSPENDED (UG/L)	107028
34215	ACRYLONITRILE, TOTAL (UG/L)	107131
34216	ACRYLONITRILE, DISSOLVED (UG/L)	107131
34217	ACRYLONITRILE, SUSPENDED (UG/L)	107131
34220	ANTHRACENE, TOTAL (UG/L)	120127
34221	ANTHRACENE, DISSOLVED (UG/L)	120127
34222	ANTHRACENE, SUSPENDED (UG/L)	120127
34225	ASBESTOS (FIBROUS) TOTAL (UG/L)	1332214
34226	ASBESTOS (FIBROUS) DISSOLVED (UG/L)	1332214
34227	ASBESTOS (FIBROUS) SUSPENDED (UG/L)	1332214
34230	BENZO(B)FLUORANTHENE, WHOLE WATER (UG/L)	205992
34231	BENZO(B)FLUORANTHENE, DISSOLVED (UG/L)	205992
34232	BENZO(B)FLUORANTHENE, SUSPENDED (UG/L)	205992
34235	BENZENE, DISSOLVED (UG/L)	71432
34236	BENZENE, SUSPENDED (UG/L)	71432
34239	BENZIDINE, DISSOLVED (UG/L)	92875
34240	BENZIDINE, SUSPENDED (UG/L)	92875

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34242	BENZO(K)FLUORANTHENE, TOTAL (UG/L)	207089
34243	BENZO(K)FLUORANTHENE, DISSOLVED (UG/L)	207089
34244	BENZO(K)FLUORANTHENE, SUSPENDED (UG/L)	207089
34247	BENZO-A-PYRENE, TOTAL (UG/L)	50328
34248	BENZO-A-PYRENE, DISSOLVED (UG/L)	50328
34249	BENZO-A-PYRENE, SUSPENDED (UG/L)	50328
34253	A-BHC-ALPHA, DISSOLVED (UG/L)	319846
34254	A-BHC-ALPHA, SUSPENDED (UG/L)	319846
34255	B-BHC-BETA, DISSOLVED (UG/L)	319857
34256	B-BHC-BETA, SUSPENDED (UG/L)	319857
34259	DELTA BENZENE HEXACHLORIDE, TOTAL (UG/L)	319868
34260	DELTA BENZENE HEXACHLORIDE, DISSOLVED (UG/L)	319868
34261	DELTA BENZENE HEXACHLORIDE, SUSPENDED (UG/L)	319868
34265	R-BHC (LINDANE) GAMMA, DISSOLVED (UG/L)	58899
34266	R-BHC (LINDANE) GAMMA, SUSPENDED (UG/L)	58899
34273	BIS (2-CHLOROETHYL) ETHER, TOTAL (UG/L)	111444
34274	BIS (2-CHLOROETHYL) ETHER, DISSOLVED (UG/L)	111444
34275	BIS (2-CHLOROETHYL) ETHER, SUSPENDED (UG/L)	111444
34278	BIS (2-CHLOROETHOXY) METHANE, TOTAL (UG/L)	111911
34279	BIS (2-CHLOROETHOXY) METHANE, DISSOLVED (UG/L)	111911
34280	BIS (2-CHLOROETHOXY) METHANE, SUSPENDED (UG/L)	111911
34288	BROMOFORM, DISSOLVED (UG/L)	75252
34289	BROMOFORM, SUSPENDED (UG/L)	75252
34292	N-BUTYL BENZYL PHTHALATE, WHOLE WATER (UG/L)	85687
34293	N-BUTYL BENZYL PHTHALATE, DISSOLVED (UG/L)	85687
34294	N-BUTYL BENZYL PHTHALATE, SUSPENDED (UG/L)	85687
34297	CARBON TETRACHLORIDE, DISSOLVED (UG/L)	56235
34298	CARBON TETRACHLORIDE, SUSPENDED (UG/L)	56235

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34301	CHLOROBENZENE, TOTAL (UG/L)	108907
34302	CHLOROBENZENE, DISSOLVED (UG/L)	108907
34303	CHLOROBENZENE, SUSPENDED (UG/L)	108907
34306	CHLORODIBROMOMETHANE, TOTAL (UG/L)	124481
34307	CHLORODIBROMOMETHANE, DISSOLVED (UG/L)	124481
34308	CHLORODIBROMOMETHANE, SUSPENDED (UG/L)	124481
34311	CHLOROETHANE, TOTAL (UG/L)	75003
34312	CHLOROETHANE, DISSOLVED (UG/L)	75003
34313	CHLOROETHANE, SUSPENDED (UG/L)	75003
34316	CHLOROFORM, DISSOLVED (UG/L)	67663
34317	CHLOROFORM, SUSPENDED (UG/L)	67663
34320	CHRYSENE, TOTAL (UG/L)	218019
34321	CHRYSENE, DISSOLVED (UG/L)	218019
34322	CHRYSENE, SUSPENDED (UG/L)	218019
34325	CYANIDE, SUSPENDED (MG/L)	57125
34327	DI-N-BUTYL PHTHALATE, DISSOLVED (UG/L)	84742
34328	DICHLOROBROMOMETHANE, DISSOLVED (UG/L)	75274
34329	DICHLOROBROMOMETHANE, SUSPENDED (UG/L)	75274
34336	DIETHYL PHTHALATE, TOTAL (UG/L)	84662
34337	DIETHYL PHTHALATE, DISSOLVED (UG/L)	84662
34338	DIETHYL PHTHALATE, SUSPENDED (UG/L)	84662
34341	DIMETHYL PHTHALATE, TOTAL (UG/L)	131113
34342	DIMETHYL PHTHALATE, DISSOLVED (UG/L)	131113
34343	DIMETHYL PHTHALATE, SUSPENDED (UG/L)	131113
34346	1,2-DIPHENYLHYDRAZINE, TOTAL (UG/L)	122667
34347	1,2-DIPHENYLHYDRAZINE, DISSOLVED (UG/L)	122667
34348	1,2-DIPHENYLHYDRAZINE, SUSPENDED (UG/L)	122667
34351	ENDOSULFAN SULFATE, TOTAL (UG/L)	1031078

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34352	ENDOSULFAN SULFATE, DISSOLVED (UG/L)	1031078
34353	ENDOSULFAN SULFATE, SUSPENDED (UG/L)	1031078
34356	ENDOSULFAN, BETA, TOTAL (UG/L)	33213659
34357	ENDOSULFAN, BETA, DISSOLVED (UG/L)	33213659
34358	ENDOSULFAN, BETA, SUSPENDED (UG/L)	33213659
34361	ENDOSULFAN, ALPHA, TOTAL (UG/L)	959988
34362	ENDOSULFAN, ALPHA, DISSOLVED (UG/L)	959988
34363	ENDOSULFAN, ALPHA, SUSPENDED (UG/L)	959988
34371	ETHYLBENZENE, TOTAL (UG/L)	100414
34372	ETHYLBENZENE, DISSOLVED (UG/L)	100414
34373	ETHYLBENZENE, SUSPENDED (UG/L)	100414
34376	FLUORANTHENE, TOTAL (UG/L)	206440
34377	FLUORANTHENE, DISSOLVED (UG/L)	206440
34378	FLUORANTHENE, SUSPENDED (UG/L)	206440
34381	FLUORENE, TOTAL (UG/L)	86737
34382	FLUORENE, DISSOLVED (UG/L)	86737
34383	FLUORENE, SUSPENDED (UG/L)	86737
34386	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	77474
34387	HEXACHLOROCYCLOPENTADIENE, DISSOLVED (UG/L)	77474
34388	HEXACHLOROCYCLOPENTADIENE, SUSPENDED (UG/L)	77474
34391	HEXACHLOROBUTADIENE, TOTAL (UG/L)	87683
34392	HEXACHLOROBUTADIENE, DISSOLVED (UG/L)	87683
34393	HEXACHLOROBUTADIENE, SUSPENDED (UG/L)	87683
34396	HEXACHLOROETHANE, TOTAL (UG/L)	67721
34397	HEXACHLOROETHANE, DISSOLVED (UG/L)	67721
34398	HEXACHLOROETHANE, SUSPENDED (UG/L)	67721
34401	HEXACHLOROBENZENE, DISSOLVED (UG/L)	118741
34402	HEXACHLOROBENZENE, SUSPENDED (UG/L)	118741

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34403	INDENO (1,2,3-CD) PYRENE, TOTAL (UG/L)	193395
34404	INDENO (1,2,3-CD) PYRENE, DISSOLVED (UG/L)	193395
34405	INDENO (1,2,3-CD) PYRENE, SUSPENDED (UG/L)	193395
34408	ISOPHORONE, TOTAL (UG/L)	78591
34409	ISOPHORONE, DISSOLVED (UG/L)	78591
34410	ISOPHORONE, SUSPENDED (UG/L)	78591
34413	METHYL BROMIDE, TOTAL (UG/L)	74839
34414	METHYL BROMIDE, DISSOLVED (UG/L)	74839
34415	METHYL BROMIDE, SUSPENDED (UG/L)	74839
34418	METHYL CHLORIDE, TOTAL (UG/L)	74873
34419	METHYL CHLORIDE, DISSOLVED (UG/L)	74873
34420	METHYL CHLORIDE, SUSPENDED (UG/L)	74873
34423	METHYLENE CHLORIDE, TOTAL (UG/L)	75092
34424	METHYLENE CHLORIDE, DISSOLVED (UG/L)	75092
34425	METHYLENE CHLORIDE, SUSPENDED (UG/L)	75092
34428	N-NITROSODI-N-PROPYLAMINE, TOTAL (UG/L)	621647
34429	N-NITROSODI-N-PROPYLAMINE, DISSOLVED (UG/L)	621647
34430	N-NITROSODI-N-PROPYLAMINE, SUSPENDED (UG/L)	621647
34433	N-NITROSODIPHENYLAMINE, TOTAL (UG/L)	86306
34434	N-NITROSODIPHENYLAMINE, DISSOLVED (UG/L)	86306
34435	N-NITROSODIPHENYLAMINE, SUSPENDED (UG/L)	86306
34438	N-NITROSODIMETHYLAMINE, TOTAL (UG/L)	62759
34439	N-NITROSODIMETHYLAMINE, DISSOLVED (UG/L)	62759
34440	N-NITROSODIMETHYLAMINE, SUSPENDED (UG/L)	62759
34443	NAPHTHALENE, DISSOLVED (UG/L)	91203
34444	NAPHTHALENE, SUSPENDED (UG/L)	91203
34447	NITROBENZENE, TOTAL (UG/L)	98953
34448	NITROBENZENE, DISSOLVED (UG/L)	98953

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34449	NITROBENZENE, SUSPENDED (UG/L)	98953
34452	PARACHLOROMETA CRESOL, TOTAL (UG/L)	59507
34453	PARACHLOROMETA CRESOL, DISSOLVED (UG/L)	59507
34454	PARACHLOROMETA CRESOL, SUSPENDED (UG/L)	59507
34457	PCB - 1242, DISSOLVED (UG/L)	53469219
34458	PCB - 1242, SUSPENDED (UG/L)	53469219
34459	PCP (PENTACHLOROPHENOL), DISSOLVED (UG/L)	87865
34460	PCP (PENTACHLOROPHENOL), SUSPENDED (UG/L)	87865
34461	PHENANTHRENE, TOTAL (UG/L)	85018
34462	PHENANTHRENE, DISSOLVED (UG/L)	85018
34463	PHENANTHRENE, SUSPENDED (UG/L)	85018
34466	PHENOL, DISSOLVED (UG/L)	108952
34467	PHENOL, SUSPENDED (UG/L)	108952
34469	PYRENE, TOTAL (UG/L)	129000
34470	PYRENE, DISSOLVED (UG/L)	129000
34471	PYRENE, SUSPENDED (UG/L)	129000
34475	TETRACHLOROETHYLENE, TOTAL (UG/L)	127184
34476	TETRACHLOROETHYLENE, DISSOLVED (UG/L)	127184
34477	TETRACHLOROETHYLENE, SUSPENDED (UG/L)	127184
34481	TOLUENE, DISSOLVED (UG/L)	108883
34482	TOLUENE, SUSPENDED (UG/L)	108883
34485	TRICHLOROETHYLENE, DISSOLVED (UG/L)	79016
34486	TRICHLOROETHYLENE, SUSPENDED (UG/L)	79016
34493	VINYL CHLORIDE, DISSOLVED (UG/L)	75014
34494	VINYL CHLORIDE, SUSPENDED (UG/L)	75014
34496	1,1-DICHLOROETHANE, TOTAL (UG/L)	75343
34497	1,1-DICHLOROETHANE, DISSOLVED (UG/L)	75343
34498	1,1-DICHLOROETHANE, SUSPENDED (UG/L)	75343

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34501	1,1-DICHLOROETHYLENE, TOTAL (UG/L)	75354
34502	1,1-DICHLOROETHYLENE, DISSOLVED (UG/L)	75354
34503	1,1-DICHLOROETHYLENE, SUSPENDED (UG/L)	75354
34506	1,1,1-TRICHLOROETHANE, TOTAL (UG/L)	71556
34507	1,1,1-TRICHLOROETHANE, DISSOLVED (UG/L)	71556
34508	1,1,1-TRICHLOROETHANE, SUSPENDED (UG/L)	71556
34511	1,1,2-TRICHLOROETHANE, TOTAL (UG/L)	79005
34512	1,1,2-TRICHLOROETHANE, DISSOLVED (UG/L)	79005
34513	1,1,2-TRICHLOROETHANE, SUSPENDED (UG/L)	79005
34516	1,1,2,2-TETRACHLOROETHANE, TOTAL (UG/L)	79345
34517	1,1,2,2-TETRACHLOROETHANE, DISSOLVED (UG/L)	79345
34518	1,1,2,2-TETRACHLOROETHANE, SUSPENDED (UG/L)	79345
34521	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, TOTAL (UG/L)	191242
34522	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, DISS. (UG/L)	191242
34523	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, SUSP. (UG/L)	191242
34526	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, TOTAL (UG/L)	56553
34527	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, DISS. (UG/L)	56553
34528	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, SUSP. (UG/L)	56553
34531	1,2-DICHLOROETHANE, TOTAL (UG/L)	107062
34532	1,2-DICHLOROETHANE, DISSOLVED (UG/L)	107062
34533	1,2-DICHLOROETHANE, SUSPENDED (UG/L)	107062
34536	1,2-DICHLOROBENZENE, TOTAL (UG/L)	95501
34537	1,2-DICHLOROBENZENE, DISSOLVED (UG/L)	95501
34538	1,2-DICHLOROBENZENE, SUSPENDED (UG/L)	95501
34541	1,2-DICHLOROPROPANE, TOTAL (UG/L)	78875
34542	1,2-DICHLOROPROPANE, DISSOLVED (UG/L)	78875
34543	1,2-DICHLOROPROPANE, SUSPENDED (UG/L)	78875
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER (UG/L)	156605

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34547	TRANS-1,2-DICHLOROETHENE, DISSOLVED (UG/L)	156605
34548	TRANS-1,2-DICHLOROETHENE, SUSPENDED (UG/L)	156605
34551	1,2,4-TRICHLOROBENZENE, TOTAL (UG/L)	120821
34552	1,2,4-TRICHLOROBENZENE, DISSOLVED (UG/L)	120821
34553	1,2,4-TRICHLOROBENZENE, SUSPENDED (UG/L)	120821
34556	1,2,5,6-DIBENZANTHRAHCENE, TOTAL (UG/L)	53703
34557	1,2,5,6-DIBENZANTHRAHCENE, DISSOLVED (UG/L)	53703
34558	1,2,5,6-DIBENZANTHRAHCENE, SUSPENDED (UG/L)	53703
34561	1,3-DICHLOROPROPENE, TOTAL (UG/L)	542756
34562	1,3-DICHLOROPROPENE, DISSOLVED (UG/L)	542756
34563	1,3-DICHLOROPROPENE, SUSPENDED (UG/L)	542756
34566	1,3-DICHLOROBENZENE, TOTAL (UG/L)	541731
34567	1,3-DICHLOROBENZENE, DISSOLVED (UG/L)	541731
34568	1,3-DICHLOROBENZENE, SUSPENDED (UG/L)	541731
34571	1,4-DICHLOROBENZENE, TOTAL (UG/L)	106467
34572	1,4-DICHLOROBENZENE, DISSOLVED (UG/L)	106467
34573	1,4-DICHLOROBENZENE, SUSPENDED (UG/L)	106467
34576	2-CHLOROETHYL VINYL ETHER, TOTAL (UG/L)	110758
34577	2-CHLOROETHYL VINYL ETHER, DISSOLVED (UG/L)	110758
34578	2-CHLOROETHYL VINYL ETHER, SUSPENDED (UG/L)	110758
34581	2-CHLORONAPHTHALENE, TOTAL (UG/L)	91587
34582	2-CHLORONAPHTHALENE, DISSOLVED (UG/L)	91587
34583	2-CHLORONAPHTHALENE, SUSPENDED (UG/L)	91587
34586	2-CHLOROPHENOL, TOTAL (UG/L)	95578
34587	2-CHLOROPHENOL, DISSOLVED (UG/L)	95578
34588	2-CHLOROPHENOL, SUSPENDED (UG/L)	95578
34591	2-NITROPHENOL, TOTAL (UG/L)	88755
34592	2-NITROPHENOL, DISSOLVED (UG/L)	88755

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34593	2-NITROPHENOL, SUSPENDED (UG/L)	88755
34596	DI-N-OCTYL PHTHALATE, TOTAL (UG/L)	117840
34597	DI-N-OCTYL PHTHALATE, DISSOLVED (UG/L)	117840
34598	DI-N-OCTYL PHTHALATE, SUSPENDED (UG/L)	117840
34601	2,4-DICHLOROPHENOL, TOTAL (UG/L)	120832
34602	2,4-DICHLOROPHENOL, DISSOLVED (UG/L)	120832
34603	2,4-DICHLOROPHENOL, SUSPENDED (UG/L)	120832
34606	2,4-DIMETHYLPHENOL, TOTAL (UG/L)	105679
34607	2,4-DIMETHYLPHENOL, DISSOLVED (UG/L)	105679
34608	2,4-DIMETHYLPHENOL, SUSPENDED (UG/L)	105679
34611	2,4-DINITROTOLUENE, TOTAL (UG/L)	121142
34612	2,4-DINITROTOLUENE, DISSOLVED (UG/L)	121142
34613	2,4-DINITROTOLUENE, SUSPENDED (UG/L)	121142
34616	2,4-DINITROPHENOL, TOTAL (UG/L)	51285
34617	2,4-DINITROPHENOL, DISSOLVED (UG/L)	51285
34618	2,4-DINITROPHENOL, SUSPENDED (UG/L)	51285
34621	2,4,6-TRICHLOROPHENOL, TOTAL (UG/L)	88062
34622	2,4,6-TRICHLOROPHENOL, DISSOLVED (UG/L)	88062
34623	2,4,6-TRICHLOROPHENOL, SUSPENDED (UG/L)	88062
34626	2,6-DINITROTOLUENE, TOTAL (UG/L)	606202
34627	2,6-DINITROTOLUENE, DISSOLVED (UG/L)	606202
34628	2,6-DINITROTOLUENE, SUSPENDED (UG/L)	606202
34631	3,3'-DICHLOROBENZIDINE, TOTAL (UG/L)	91941
34632	3,3'-DICHLOROBENZIDINE, DISSOLVED (UG/L)	91941
34633	3,3'-DICHLOROBENZIDINE, SUSPENDED (UG/L)	91941
34636	4-BROMOPHENYL PHENYL ETHER, TOTAL (UG/L)	101553
34637	4-BROMOPHENYL PHENYL ETHER, DISSOLVED (UG/L)	101553
34638	4-BROMOPHENYL PHENYL ETHER, SUSPENDED (UG/L)	101553

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
34641	4-CHLOROPHENYL PHENYL ETHER, TOTAL (UG/L)	7005723
34642	4-CHLOROPHENYL PHENYL ETHER, DISSOLVED (UG/L)	7005723
34643	4-CHLOROPHENYL PHENYL ETHER, SUSPENDED (UG/L)	7005723
34646	4-NITROPHENOL, TOTAL (UG/L)	100027
34647	4-NITROPHENOL, DISSOLVED (UG/L)	100027
34648	4-NITROPHENOL, SUSPENDED (UG/L)	100027
34651	P,P'-DDD, DISSOLVED (UG/L)	72548
34652	P,P'-DDD, SUSPENDED (UG/L)	72548
34653	P,P'-DDE, DISSOLVED (UG/L)	72559
34654	P,P'-DDE, SUSPENDED (UG/L)	72559
34655	P,P'-DDT, DISSOLVED (UG/L)	50293
34656	P,P'-DDT, SUSPENDED (UG/L)	50293
34657	DNOC (4,6-DINITRO-ORTHO-CRESOL), TOTAL (UG/L)	534521
34658	DNOC (4,6-DINITRO-ORTHO-CRESOL), DISSOLVED (UG/L)	534521
34659	DNOC (4,6-DINITRO-ORTHO-CRESOL), SUSPENDED (UG/L)	534521
34662	PCB - 1221, DISSOLVED (UG/L)	11104282
34663	PCB - 1221, SUSPENDED (UG/L)	11104282
34665	PCB - 1232, DISSOLVED (UG/L)	11141165
34666	PCB - 1232, SUSPENDED (UG/L)	11141165
34671	PCB - 1016, TOTAL (UG/L)	12674112
34672	PCB - 1016, DISSOLVED (UG/L)	12674112
34673	PCB - 1016, SUSPENDED (UG/L)	12674112
34675	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD),TOT(UG/L)	1746016
34676	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)DISS(UG/L)	1746016
34677	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)SUSP(UG/L)	1746016
34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTAL (UG/L)	108952
34696	NAPHTHALENE, TOTAL (UG/L)	91203
34750	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)TOT(PG/L)	1746016

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34751	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)DISS(PG/L)	1746016
34752	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)SUSP(PG/L)	1746016
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE (UG/L)	87865
39039	HEXACHLOROBENZENE WATER SAMPLE,ELECTRON CPT (UG/L)	118741
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER (UG/L)	117817
39103	BIS(2-ETHYLHEXYL) PHTHALATE, DISSOLVED, (UG/L)	117817
39104	BIS(2-ETHYLHEXYL) PHTHALATE, SUSPENDED, (UG/L)	117817
39107	PHTHALATES,DIETHYLHEXYL SUS.FRAC.WTR DWT (MG/KG)	117817
39110	DI-N-BUTYL PHTHALATE, WHOLE WATER (UG/L)	84742
39114	DI-N-BUTYL PHTHALATE, SUSPENDED (UG/L)	84742
39115	PHTHALATES,DIBUTYL SUS.FRAC.WATER DWT (UG/KG)	84742
39120	BENZIDINE IN WHOLE WATER SAMPLE (UG/L)	92875
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE (UG/L)	75014
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE (UG/L)	79016
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	50293
39310	P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	72548
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	72559
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	309002
39331	ALDRIN IN FILT. FRAC. OF WAT. SAMP. (UG/L)	309002
39332	ALDRIN IN SUSP. FRAC. OF WAT. SAMP. (UG/L)	309002
39336	BHC-ALPHA, WATER, WHOLE (LBS/DAY)	319846
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	319846
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	319857
39340	GAMMA-BHC(LINDANE), WHOLE WATER (UG/L)	58899
39341	GAMMA-BHC(LINDANE), DISSOLVED (UG/L)	58899
39342	GAMMA-BHC(LINDANE), SUSPENDED (UG/L)	58899
39344	BHC-GAMMA, WATER, WHOLE (LBS/DAY)	58899
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATER (UG/L)	57749

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
39352	CHLORDANE(TECH MIX & METABS), DISSOLVED (UG/L)	57749
39353	CHLORDANE(TECH MIX & METABS), SUSPENDED (UG/L)	57749
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	72548
39361	DDD IN FILT. FRAC. OF WATER SMAPLE (UG/L)	72548
39362	DDD IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72548
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	72559
39366	DDE IN FILT. FRAC. OF WATER SAMPLE (UG/L)	72559
39367	DDE IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72559
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	50293
39371	DDT IN FILT. FRAC. OF WATER SAMPLE (UG/L)	50293
39372	DDT IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	50293
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	60571
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	60571
39382	DIELDRIN IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	60571
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	72208
39391	ENDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	72208
39392	ENDRIN IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72208
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	8001352
39401	TOXAPHENE IN FILT. FRAC. OF WATER SAMPLE (UG/L)	8001352
39402	TOXAPHENE IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	8001352
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	76448
39411	HEPTACHLOR IN FILT. FRAC. OF WATER SAMPLE (UG/L)	76448
39412	HEPTACHLOR IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	76448
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	1024573
39421	HEPTACHLOR EPOXIDE IN FILT. FRAC. WAT. SAM. (UG/L)	1024573
39422	HEPTACHLOR EPOXIDE IN SUSP. FRAC. WAT. SAM. (UG/L)	1024573
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE (UG/L)	11104282
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11141165

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE (UG/L)	53469219
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE (UG/L)	12672296
39501	PCB - 1248 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	12672296
39502	PCB - 1248 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	12672296
39504	PCB - 1254 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11097691
39505	PCB - 1254 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11097691
39506	PCB - 1254 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	11097691
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11096825
39509	PCB - 1260 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11096825
39510	PCB - 1260 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	11096825
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	118741
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE (UG/L)	87683
39782	LINDANE IN WHOLE WATER SAMPLE (UG/L)	58899
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	534521
46322	LINDANE PLUS ISOMERS IN WHOLE WATER SAMPLE (UG/L)	58899
46323	DELTA-BHC IN WHOLE WATER SAMPLE (UG/L)	319868
46326	HEPTACHLOR AND METABOLITES IN WH. H2O SAMP. (UG/L)	76448
46479	CYANIDE, DISSOLVED, WATER (UG/L)	57125
46551	ARSENIC, FIELD ACIDIFIED W/HNO3, LAB FILT. (UG/L)	7440382
46559	CADMIUM, FIELD ACIDIFIED-HNO3-LAB FILTER (UG/L-CD)	7440439
46560	CHROMIUM, FIELD ACIDIFIED-HN03-LAB FILT. (UG/L-CR)	7440473
46562	COPPER, FIELD ACIDIFIED-HNO3-LAB FILTER. (UG/L-CU)	7440508
46564	LEAD, FIELD ACIDIFIED-HNO3-LAB FILTERED (UG/L-PB)	7439921
46566	SILVER, FIELD ACIDIFIED-HNO3-LAB FILTER.(UG/L-AG)	7440224
46567	ZINC, EXTRACT. FIELD ACID W/HNO3, LAB FILT. (UG/L)	7440666
70012	PARACHLOROMETA CRESOL, WATER, WHOLE (LBS/DAY)	59507
70017	HEXACHLOROCYCLOPENTADIENE, WATER, WHOLE (LBS/DAY)	77474
70021	LEAD, (TCLP), WATER, TOTAL (MG/L)	7439921

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
71890	MERCURY, DISSOLVED (UG/L AS HG)	7439976
71895	MERCURY, SUSPENDED (UG/L AS HG)	7439976
71900	MERCURY, TOTAL (UG/L AS HG)	7439976
71901	MERCURY, TOTAL RECOVERABLE IN WATER AS HG (UG/L)	7439976
71946	CADMIUM, EXTRACTABLE (UG/L AS CD)	7440439
71947	CHROMIUM, EXTRACTABLE (UG/L AS CR)	7440473
71949	LEAD, EXTRACTABLE (UG/L AS PB)	7439921
71950	ZINC, EXTRACTABLE (UG/L AS ZN)	7440666
71951	COPPER, EXTRACTABLE (UG/L AS CU)	7440508
73063	CHLOROGUAIAACOL,4-, TOTAL, WATER (UG/L)	16766306
73522	PROPANE, 2,2'-OXYBIS(1-CHLORO)- TOTAL (UG/L)	108601
77163	1,3-DICHLOROPROPENE-1, WHOLE WATER (UG/L)	542756
77354	1,1-DICHLORO-2,2-DIFLUOROETHANE WHOLE WATER (UG/L)	471432
77771	3-CHLORO-4-HYDROXYBENZOPHENONE, WHOLE WATER (UG/L)	55191203
78113	ETHYL BENZENE WHOLE WATER SAMPLE (UG/L)	100414
78124	BENZENE IN WATER (VOLATILE ANALYSIS) (UG/L)	71432
78131	TOLUENE IN WHOLE WATER (VOLATILE ANALYSIS) (UG/L)	108883
78208	2,4-DINITRO-O-CRESOL IN WHOLE WATER SAMPLE (UG/L)	534521
78247	CHROMIUM, HEXAVALENT, TOTAL RECOVERABLE, WT (UG/L)	18540299
78248	CYANIDE, TOTAL RECOVERABLE, WATER, WHOLE (UG/L)	57125
80357	CHROMIUM, TRIVALENT, DISSOLVED, AS CR	16065831
81208	CYANIDE, FREE (NOT AMEN. TO CHLORINATION) (MG/L)	57125
81210	CYANIDE - STATE OF ILLINOIS (MG/L)	57125
81214	CADMIUM - STATE OF ILLINOIS (MG/L)-COLD	7440439
81215	CHROMIUM - STATE OF ILLINOIS (MG/L), COLD DIGEST	18540299
81216	CHROMIUM(TRI)-STATE OF ILLINOIS (MG/L)-COLD DIGEST	16065831
81217	CHROMIUM, TOTAL - STATE OF ILLINOIS (MG/L) COLD DIGEST	7440473
81218	COPPER, STATE OF ILLINOIS, MG/L, COLD DIGEST	7440508

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
81220	LEAD, STATE OF ILLINOIS, MG/L, COLD DIGEST	7439921
81222	NICKEL - STATE OF ILLINOIS, MG/L, COLD DIGEST	7440020
81223	SILVER, STATE OF ILLINOIS, MG/L, COLD DIGEST	7440224
81224	ZINC - STATE OF ILLINOIS, MG/L, COLD DIGEST	7440666
81642	SILVER (AG) IN WATER POUNDS PER DAY (LBS/DAY)	7440224
81750	COPPER, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440508
81751	LEAD, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7439921
81752	NICKEL, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440020
81753	CADMUM, INTERSTITIAL WATER FROM SEDIMENT	7440439
81754	ZINC, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440666
81766	HEPTACHLOR EPOXIDE IN EPILITHIC ALGAE SED. (UG/KG)	1024573
81931	MERCURY (HG) SUSPENDED FRACTION OF WATER (UG/G)	7439976
81932	CADMUM (CD) SUSPENDED FRACTION OF WATER (UG/G)	7440439
81933	ZINC (ZN) SUSPENDED FRACTION OF WATER (UG/G)	7440666
81934	LEAD (PB) SUSPENDED FRACTION OF WATER (UG/G)	7439921
81936	LEAD (PB) DISSOLVED CATIONIC SPECIES (UG/L)	7439921
81937	CADMUM (CD) DISSOLVED CATIONIC SPECIES (UG/L)	7440439
81938	CHROMIUM, DISSOLVED CATIONIC SPECIES (UG/L)	7440473
81939	COPPER (CU) DISSOLVED CATIONIC SPECIES (UG/L)	7440508
81940	ZINC (ZN) DISSOLVED CATIONIC SPECIES (UG/L)	7440666
81941	CHROMIUM, DISSOLVED ANIONIC SPECIES (UG/L)	7440473
81942	COPPER (CU) DISSOLVED ANIONIC SPECIES (UG/L)	7440508
81943	ZINC (ZN) DISSOLVED ANIONIC SPECIES (UG/L)	7440666
82058	CHROMIUM, TOTAL, PERCENT REMOVAL	7440473
82399	CHROMIUM, HEXAVALENT (KG/BATCH)	18540299
82512	M,P-DICHLOROBENZENE (MEASURES 1,3&1,4) TOT. (UG/L)	541731
82573	CYANIDE/CHLORINATION IN WATER (MG/L)	57125
82621	HEXACHLOROBENZENE, WATER, TOTAL RECOVER. (UG/L)	118741

<b>STORET Code</b>	<b>Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-</b>	<b>C.A.S. Number</b>
82622	ENDRIN ALDEHYDE, WH. WATER, TOTAL RECOVER. (UG/L)	7421934
82623	ENDOSULFAN SULFATE, WATER, TOTAL RECOVER. (UG/L)	1031078
82624	ENDOSULFAN, BETA, WH. WATER, TOTAL RECOVER. (UG/L)	33213659
82626	1,2-DIPHENYLHYDRAZINE, WATER, TOTAL RECOVER. (UG/L)	122667
82627	PARACHLOROMETA CRESOL, WATER, TOTAL RECOVER. (UG/L)	59507
82702	ARSENIC, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440382
82704	BERYLLIUM, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440417
82705	CADMIUM, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440439
82706	CHROMIUM, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440473
82708	COPPER, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440508
82711	LEAD, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7439921
82713	MERCURY, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7439976
82715	NICKEL, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440020
82716	SILVER, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440224
82719	ZINC, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440666
85006	ZINC, TOTAL - (#/DAY)	7440666
85007	CHROMIUM, TOTAL (#/DAY)	7440473
85010	NICKEL, TOTAL - (#/DAY)	7440020
85013	MERCURY, TOTAL - (#/DAY)	7439976



## **Appendix H**

### **Literature Cited**

Code of Federal Regulations. 1994. Protection of Environment. 40 CFR Parts 100 to 149. Revised as of July 1, 1994. Published by the Office of the Federal Register, National Archives and Records Administration. U.S. Government Printing Office, Washington, D.C. 20402.

Gilbert, R. O. 1987. Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold Co., New York, NY. 320p.

GKY and Associates. 1990. Dam Inventory Database and Retrieval Software: Final Report. U.S. Environmental Protection Agency, Water Quality Analysis Branch. Under Contract #68-03-3339.

Kunkle, S. and J. Wilson. 1984. Specific Conductance and pH Measurements in Surface Waters: An Introduction for Park Natural Resource Specialists. Water Resources Field Support Laboratory Report No. 84-3. National Park Service, Water Resources Division, Fort Collins, Colorado 80525. 51p.

National Park Service. 1993. Strategic Plan for Conducting Baseline Natural Resource Inventories in the National Park Service. National Park Service, Washington Office, Servicewide Inventory and Monitoring Program, Washington, D.C. Unpublished. 17p.

U.S. Environmental Protection Agency. 1995. Quality Criteria for Water 1995. Final Draft. Office of Water Regulations and Standards, Washington, D.C.

U.S. Environmental Protection Agency. 1989. STORET User Handbook. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. 20460.

U.S. Environmental Protection Agency. 1992. Office of Water Environmental and Program Information Systems Compendium. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. 20460. 152p.

U.S. Environmental Protection Agency. 1993. Technical Description of the Reach File. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. 20460. 23p.

U.S. Geological Survey. 1982. A U.S. Geological Survey Data Standard: Codes for the Identification of Hydrologic Units in the United States and Caribbean Outlying Areas. Geological Survey Circular 878-A. U.S. Geological Survey, Water Resources Division, Reston, VA. 22092. 115p.

U.S. Geological Survey 1992. Hydro-Climatic Data Network: A U.S. Geological Survey Streamflow Data Set for the United States for the Study of Climate Variations 1874-1988. Open File Report 92-129/USGS Water Supply Paper No. 2406. U.S. Geological Survey, Water Resources Division, Reston, VA. 22092. 193p.

Ward, R. C., J. C. Loftis, and G. B. McBride. 1990. Design of Water Quality Monitoring Systems. Van Nostrand Reinhold Co., New York, NY. 231p.



## Appendix I

### Selected General Water Quality References

- American Public Health Association. 1989. Standard Methods for the Examination of Water and Wastewater (17th ed.). Washington, D.C. 1476p.
- Drever, J. I. 1982. The Geochemistry of Natural Waters. Prentice-Hall, Inc., Englewood Cliffs, NJ. 388p.
- Dunne, T. and L. B. Leopold. 1978. Water in Environmental Planning. W.H. Freeman and Company, San Francisco, CA. 818p.
- Everett, L. G. 1980. Groundwater Monitoring. General Electric Co., Schenectady, NY. 440p.
- Fetter, C. W. 1988. Applied Hydrogeology (2nd ed.). MacMillan Publishing Co., New York, NY. 592p.
- Flora, M. D., T. E. Ricketts, J. Wilson, and S. Kunkle. 1984. Water Quality Criteria: An Overview for Park Natural Resource Specialists. WRFSL Report No. 84-4. National Park Service, Water Resources Field Support Laboratory, Fort Collins, CO. 46p.
- Gilbert, R. O. 1987. Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold Co., New York, NY. 320p.
- Hem, J. D. 1985. Study and Interpretation of the Chemical Characteristics of Natural Water (3rd ed.). U.S. Geological Survey Water-Supply Paper 2254. U.S. Government Printing Office, Washington, D.C. 263p.
- Kunkle, S., W. S. Johnson, and M. Flora. 1987. Monitoring Stream Water Quality for Land-Use Impacts: A Training Manual for Natural Resource Management Specialists. Water Resources Division, National Park Service, Fort Collins, CO. 102p.
- Kunkle, S. and J. Wilson. 1984. Specific Conductance and pH Measurements in Surface Waters: An Introduction for Park Natural Resource Specialists. Water Resources Field Support Laboratory Report No. 84-3. National Park Service, Water Resources Division, Fort Collins, Colorado 80525. 51p.
- Merritt, R. W., and K. W. Cummins (eds.). 1984. An Introduction to the Aquatic Insects of North America (2nd ed.). Kendall/Hunt Publishing Co., Dubuque, IA. 44p.
- Morel, F. M. 1983. Principles of Aquatic Chemistry. John Wiley & Sons, Inc., New York, NY. 446p.
- Nielsen, D. M. (ed.). 1991. Practical Handbook of Ground-Water Monitoring. Lewis Publishers, Inc. Chelsea, MI. 717p.
- Ponce, S. L. 1980a. Statistical Methods Commonly Used in Water Quality Data Analysis. WSDG Technical Paper WSDG-TP-00001. U.S. Department of Agriculture, Forest Service, Watershed Systems Development Group, Fort Collins, CO. 136p.
- Ponce, S. L. 1980b. Water Quality Monitoring Programs. WSDG Technical Paper WSDG-TP-00002. U.S. Department of Agriculture, Forest Service, Watershed Systems Development Group, Fort Collins, CO. 68p.
- Rand, G. M. and S. R. Petrocelli (eds.). 1985. Fundamentals of Aquatic Toxicology. Hemisphere Publishing Co., New York, NY. 666p.

Rantz, S. E. and others. 1982. Measurement and Computation of Streamflow: Volume 1. Measurement of Stage and Discharge. Volume 2. Computation of Discharge. U.S. Department of the Interior, Geological Survey Water Supply Paper 2175. 631p.

Stednick, J.D. and D. M. Gilbert. 1998. Water Quality Inventory Protocol: Riverine Environments. National Park Service, Water Resources Division Technical Report NPS/NRWRD/NRTR-98/177. Fort Collins, CO. 103p.

Stednick, J. D. 1991. Wildland Water Quality Sampling and Analysis. Academic Press, Inc., San Diego, CA. 217p.

United Nations Educational, Scientific and Cultural Organization (UNESCO). 1978. Water Quality Surveys: A Guide for the Collection and Interpretation of Water Quality Data. IHD-WHO Working Group on the Quality of Water, Paris, France. 350p.

U.S. Department of the Interior. 1977. National Handbook of Recommended Methods for Water-Data Acquisition. U.S. Geological Survey, Office of Water-Data Coordination, Reston, VA. 990p.

U.S. Environmental Protection Agency. 1978. Microbiological Methods for Monitoring the Environment: Water and Wastes. R. H. Border, J. A. Winter, and P. W. Scarpino. EPA-600/8-78-017. Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 338p.

U.S. Environmental Protection Agency. 1979b. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-020. (Revised March 1983). Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 460p.

U.S. Environmental Protection Agency. 1983. Water Quality Standards Handbook. Office of Water Regulations and Standards, Washington, D.C. 218p.

U.S. Environmental Protection Agency. 1995. Quality Criteria for Water 1995. Final Draft. Office of Water Regulations and Standards, Washington, D.C.

U.S. Environmental Protection Agency. 1989. Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish. J. L. Plafkin, M. T. Barbour, K. D. Porter, S. K. Gross, and R. M. Hughes. EPA-444/4-89-001. Office of Water Regulations and Standards, Assessment and Watershed Protection Division, Washington, D.C. 162p.

U.S. Environmental Protection Agency. 1990. Macroinvertebrate Field and Laboratory Methods for Evaluating the Biological Integrity of Surface Waters. D. J. Klemm, P. A. Lewis, F. Fulk, and J. M. Lazorchak. EPA-600/4-90-030. Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 256p.

U.S. Environmental Protection Agency. 1991a. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (4th ed.). C. I. Weber, ed. EPA-600/4-90-027. Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 293p.

U.S. Environmental Protection Agency. 1991b. Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska. L. H. MacDonald, A. W. Smart, and R. C. Wissmar. EPA-910/9-91-001. Region 10, Seattle, WA. 162p.

U.S. Environmental Protection Agency. 1993. Guide to Federal Water Quality Programs and Information. T. Stuart and N. P. Ross. EPA-230-B-93-001. Office of Strategic Planning and Environmental Data, Environmental Statistics and Information Division. Washington, D.C. 194p.

Verschueren, K. 1983. Handbook of Environmental Data on Organic Chemicals (2nd ed.). Van Nostrand Reinhold Co., New York, NY. 1310p.

Viessman W. and M. J. Hammer. 1985. Water Supply and Pollution Control (4th ed.). Harper and Row, Publishers, Inc. New York, NY. 797p.

Ward, R. C., J. C. Loftis, and G. B. McBride. 1990. Design of Water Quality Monitoring Systems. Van Nostrand Reinhold Co., New York, NY. 231p.

Wetzel, R. G. 1983. Limnology (2nd ed.). Sanders College Publishing, Philadelphia, PA. 767p.





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As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The Department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.